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COGNITIVE AND BEHAVIORAL FACTORS PRECEDING AN ATHLETE'S
CURRENT SPORT SEASON FOLLOWING A PREVIOUS SEASON ENDING
INJURY: A QUALITATIVE RETROSPECTIVE STUDY

A Masters Thesis presented to the Faculty of the
Graduate Program in Exercise and Sport Sciences
Ithaca College

In partial fulfillment of the requirements for the degree
Master of Science

by

Riley Nickols

September 2005

Ithaca College
Graduate Program in Exercise and Sports Sciences
Ithaca, NY

CERTIFICATE OF APPROVAL

MASTER OF SCIENCE THESIS

This is to certify that the Master of Science Thesis of
Riley Nickols

submitted in partial fulfillment of the requirements
for the degree of Master of Science in Exercise and
Sport Sciences at Ithaca College has been approved.

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ABSTRACT

Injury research has typically focused on how athletes respond to and cope with injury. As a result, there exists little research on those factors that influence an athlete's long-term recovery after a serious injury. The purpose of the current study was to examine the cognitive and behavioral factors that influenced athletes' current sport season preparation following a previous season ending injury. The present study used qualitative methodologies to examine these cognitive and behavioral factors. Specifically, this study examined the thoughts, feelings, emotions, and behaviors surrounding injury and return to play of five ($n=5$) athletes via in-depth retrospective qualitative interview processes. Additional interviews were conducted with each athlete's primary athletic trainer and a significant other (e.g., roommate, friend, parent, boyfriend/girlfriend) as identified by the athlete. The raw data were transcribed verbatim and then organized into significant statements, meaningful units, lower-order themes, and higher-order themes. Higher-order themes were then compared across participants and similar higher-order themes were grouped together to form common themes. Six common themes resulted. Specifically, (a) athletes had difficulty watching their teammates compete while being physically limited as a result of their injuries, (b) athletes found support through their parents, family, friends, teammates, and athletic trainers, (c) immediately after their injuries occurred, the athletes recognized that they had experienced a serious injury, (d) upon their return to play, athletes were nervous about getting hurt again and worried about the condition of their injury and regaining their skills, (e) the athletes' injury rehabilitation was a long and frustrating process, and (f) athletes benefited from talking with other athletes who had experienced a similar injury.

Although these six common themes emerged from the data, each of the participants had unique injury experiences. Recommendations for future research are provided.

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The athletes, athletic trainers, and significant others who willingly participated in this study, for responding honestly and openly during the interview process.

DEDICATION

This thesis is dedicated to my Lord and Savior Jesus Christ and my beautiful wife Betsy. I have learned that all things are possible through God, who has richly blessed all aspects of my life. I love you Betsy and thank you for the joy and happiness that you bring to my life each and every day.

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Chapter 1

INTRODUCTION

A serious injury can be both physically and psychologically traumatic for any athlete. For athletes who devote an immense amount of time, energy, and emotion to their sport and define their self worth by their performance and success in athletics, a serious injury can be psychologically devastating. Clearly, an athlete's mental state, or psychological outlook, will have a significant impact on their rehabilitation from injury and eventual return to competition (Russell, 2000). Numerous factors can influence this mental state. For example, a lack of social support, decreased participation in practices and games, a difficult rehabilitation process, and fear of re-injury are all factors that can contribute to a negative mental state of an injured athlete (Granito, 2001).

Injuries in sport appear to be increasing in frequency (Meeuwisse & Fowler, 1988), and research into the psychological aspects of athletic injuries continues to gain popularity within the sport psychology and athletic training literature (Brewer, 1998; Crossman, 2001; Pargman, 1999; Ray & Wiese-Bjornstal, 1999). Cognitive appraisal, or how an athlete perceives his or her injury (Brewer, 1994; Kerr & Miller, 2001), rehabilitation stress (Hardy, 1992; Heil, 1993; Weiss & Troxel, 1986), and an athlete's level of social support (Albrecht & Adelman, 1987; Hobfoll & Stephens, 1990; Rotella & Heyman, 1986) are the topics appearing most frequently in the literature. Wiese-Bjornstal, Smith, Shaffer, and Morrey (1998) concluded the athlete's cognitive appraisal of his or her injury to be very important in the recovery process. It has been shown that athletes experience a cognitive response following an injury, which influences their emotional response (e.g., anger, denial, depression, shock), and ultimately their

behavioral outcomes (e.g., adherence to rehabilitation, use of social support networks, use of coping skills) (Granito, 2001).

The grief response is another important factor in the rehabilitation process.

Investigators have concluded that following physical injury, many athletes experience somewhat predictable psychological reactions such as depression, anxiety, and impaired self-esteem, which may, in some cases, reach similar intensity levels to clients receiving outpatient psychotherapy (Crossman, 1985; Eldridge, 1983; Wiese & Wiese, 1987).

Petitpas and Danish (1995) indicated the four most common reactions to athletic injury to be 1) fear and anxiety over the recovery process, 2) identity loss, 3) lack of confidence in skills, and 4) performance decrements following return to competition. Evans and Hardy (1995) described a three-stage grief process that is often applied to athletic injury. The first stage is characterized by grief and anger and consists of stress reactions to the injury as the athlete attempts to recover what has been lost (e.g., lost identity and self-esteem). In the second stage, the athlete will likely realize the negative impact of the injury on his or her future sport participation, as their emotions may carry over into other contexts (e.g., relationships, school/work etc.). Recovery is achieved during the third stage when these symptoms become less prevalent and the athlete is able to focus on the process of recovery rather than focusing on the grief that resulted from the injury.

The social support received following injury has also been investigated and is considered an important factor influencing rehabilitation (Johnston & Carroll, 1998). Teammates, coaches, team physicians, certified athletic trainers (ATCs), family, and friends all play important roles in athletes' recovery from injury (Wiese, Weiss, & Yukelson, 1991). Injured athletes' expectations of athletic trainers and the psychological

assistance they expect to receive from them have also been studied (Washington-Lofgren, Nashman, Sullivan, & Westerman, 2004).

Gould, Udry, Bridges and Beck (1997) used retrospective interviews with elite U.S. Ski Team members to examine strategies for coping with stressors resulting from injury. It was found that skiers who did not recover successfully from an injury reported less attention or apathy from others, more negative relationships, and more concerns with being physically inactive compared with those skiers who had a more successful recovery. This study is unique in that it is one of the few retrospective qualitative studies that focuses on season ending injuries suffered in sport. Shelley (1999) also used a qualitative design that evaluated athlete's perceptions of injury and found that athletes' perceptions about injury often change over the course of the injury process. He emphasized the importance of significant others (e.g., coaches and teammates) influencing athletes' emotional responses.

Hardy (1992) suggested that if sport psychologists are to understand the psychology of injury, it is crucial that they better understand "why" injuries are stressful for athletes and verify whether such issues as post-rehabilitation stress are major problems. Granito (2001) also used a qualitative approach to describe the athletic injury experience while focusing on the meaning of the injury from the perspectives of both the injured athlete and student athletic trainer. It was found that personality factors (e.g., athletic identity and role on the team), effects on relationships (e.g., trainers, teammates, coaches, family), sociological aspects (e.g., gender differences and subculture), physical factors (e.g., pain, physical deconditioning, surgery), daily hassles (e.g., effects on life), and feelings associated with injury and rehabilitation (e.g., frustration, isolation,

depression, anger, fear, confusion) were all factors impacting the psychological and emotional responses of injured athletes.

Injury research has often focused on how athletes respond, or cope, immediately following an injury. Still, there is relatively little research on the factors that influence an athlete's successful long-term recovery after a serious injury. The purpose of the current study was to examine those factors that influenced an athlete's current sport season preparation following a previous season ending injury. This study differs from most of the previous research by examining athletic injury through a retrospective qualitative interview process. The present study used a qualitative approach to examine the aforementioned cognitive and behavioral factors (i.e., cognitive appraisal, grief response, and social support) that followed the onset of athletic injury. A qualitative interview methodology was selected because open-ended interviews have the advantage of allowing subjects to more freely associate, and in this study, identify those cognitive and behavioral factors that influenced their current sport season preparation following a previous season ending injury.

Research Question

What cognitive and behavioral factors precede an athlete's current sport season following a previous season ending injury?

Scope of the Problem

Most athletes experience an injury or multiple injuries over the course of their athletic careers. However, a serious injury, such as a season ending injury, can be psychologically devastating for many athletes. Recovery time, rehabilitation, time away from competition, and many other factors likely influence the athlete's recovery from

injury. For example, perceived stress is a factor that can influence an athlete's response to injury and affect their physical, emotional, and social well-being, as well as their self-concept (Russell, 2000). The current study examined the following question: What cognitive and behavioral factors influence an athlete's current sport season preparation following a previous season ending injury? While much of the previous injury research has focused on the stages of the rehabilitation process (Bianco, Malo, & Orlick, 1999; Evans & Hardy, 1995; McDonald & Hardy, 1990), few studies have used a retrospective qualitative design to investigate the cognitive and behavioral factors that influence an injured athlete's preparation for an upcoming sport season following a previous season ending injury.

Assumptions of the Study

The following assumptions were made:

1. The subjects were representative of college-aged athletes recovering from a season-ending injury.
2. The subjects provided honest responses to the questions asked in the interview process.

Definition of Terms

The following terms were operationally defined for the purpose of this study:

1. Common Theme- a description of a common attitude (e.g., belief, experience, or emotion) across participants (Patton, 1990).

2. Higher-Order Theme- a description of an individual student-athlete's attitude (e.g., belief, experience, or emotion) in relation to a specific outlined aspect of exploration (Patton, 1990).
3. Inductive Content Analysis- a systematic data analysis that allows patterns, themes, and categories to emerge from the data. Such patterns and themes emerge out of the data rather than being decided prior to the data collection and analysis (Patton, 1987).
4. Meaning Unit- a group of identified perceptions and behaviors that are similar among subjects. This group of perceptions and behaviors is identified by a title or name that encompasses and exemplifies all perceptions or behaviors within that group (Tesch, 1990).
5. Phenomenology- the study of how people describe things and experience them through their senses (Patton, 1990).
6. Rigor- one's discipline, adherence, and accuracy in identifying the problem, designing the research, and analyzing the data. It requires objectivity and conciseness on the part of the researcher (Shelley, 1999).
7. Semi-Structured Interview Guide- a list of questions, topics, or issues that are to be explored in the course of an interview (Patton, 1990). The interviewer is able to expand or ask other relevant questions in order to probe throughout the interview process depending on the direction of the interview. A semi-structured interview guide allows individuals to express their own perspectives and experiences (Patton, 1990).
8. Significant Statement- a response by the subject that pertains directly to the research questions and phenomenon being studied (Shelley, 1999).

9. Triangulation- a means of enhancing credibility by building checks and balances into a design through multiple data collection strategies. Using more than one data collection approach permits the researcher to strengthen the data (Patton, 1987). In the present study, triangulation of data was achieved through athlete interviews, athletic trainer interviews, and interviews with a significant other (i.e., a parent, athletic trainer, or boyfriend/girlfriend).

Delimitations

The delimitations of this study include the following:

1. College-student athletes from Ithaca College and Cornell University were interviewed.
2. Only those student-athletes who experienced season ending injuries were interviewed.

Limitations

The limitations of this study include the following:

1. The results are limited by the truthfulness of the participants' responses to the interview questions.
2. Results are limited to the qualitative phenomenological methodologies used in this study.
3. Results may only be generalized to student-athletes who have experienced season ending injuries at Ithaca College or Cornell University.

Chapter II

REVIEW OF LITERATURE

Injury is inevitable for thousands of athletes each year. Although there is extensive research regarding athletic injury, few studies have investigated how athletes' experiences, after suffering a season ending injury, effect their preparation for an upcoming season. Factors most likely to contribute to an athlete's return to competition include: 1) the athlete's perception of social support, 2) the perceived athlete-athletic trainer relationship, 3) the athlete's cognitive appraisal of his or her injury, and 4) the athlete's emotions upon returning to competition (Arnheim, 1985; Nideffer, 1989; Petitpas & Danish, 1995; Rotella & Heyman, 1986). Although the stages of injury have been examined (Bianco, Malo, & Orlick, 1999; Evans & Hardy, 1995; Hardy & Crace, 1993; McDonald & Hardy, 1990), the cognitive and behavioral factors preceding an athlete's training for an upcoming season have been relatively unexplored.

Injured Athletes' Social Support

Social support is important for injured athletes as they cope with injury. Support can help enhance an injured athlete's mood, reduce stress, improve treatment adherence, and increase motivation for rehabilitation (Weinberg & Gould, 2003). Cobb (1976) viewed social support as an informational aid. For example, social support offers: a) information leading individuals to believe that they are cared for and loved; b) information leading individuals to believe that they are esteemed and valued; and c) information leading individuals to believe that they belong to a network of communication and mutual obligation in which others can be counted on in a time of need. The type and quality of support given, an athlete's perception of the support they

receive, and the providers of social support are all critical factors that will facilitate or hinder an athlete's injury rehabilitation.

Before an athlete seeks support from others, he or she will first evaluate their own available resources in order to effectively cope with their injury and rehabilitation.

According to Hobfoll and Stokes (1988), athletes seek the support of others to help them cope with injury when there is an absence of effective personal coping skills. Extending one's social support can assist in coping with the stress of an injury by providing a feeling of attachment to others, directly limiting resource loss, and providing for resources that are lost during the injury rehabilitation (Hobfoll & Stephens, 1990). The context of social support can be a crucial factor in an athlete's injury rehabilitation since the stress of the injury involves the loss of many tangible resources (Hobfoll & Stephens, 1990).

There are likely numerous positive outcomes to receiving social support, especially when an athlete is unable to compete for an extended period of time. Researchers have shown that an athlete's treatment and recovery process is often enhanced by different types of social support (Gordon & Lindgren, 1990; Ievleva & Orlick, 1991; Silva & Hardy, 1991; Weiss & Troxel, 1986). For example, stress often results from an injury. Proper support and resources available to an athlete can help reduce the amount of stress experienced during the rehabilitation process. In short, effective social support functions to sustain health and reduce stress (Shumaker & Brownell, 1984). Similarly stated, an injured athlete's mental and physical health can benefit from effective social support (Hardy & Crace, 1993).

Social support can have benefits, however, social support is not always facilitative to the athlete during the rehabilitation process. Hardy and Crace (1993) argued that ineffective social support can diminish mental and physical well-being and that social support must be positive to be effective. Effective social support behaviors include: expressing emotional support or appraisal support, giving information, offering emotionally sustaining behaviors, and listening to the concerns and feelings of others (Albrecht & Adelman, 1984). These behaviors represent three general dimensions of social support – emotional, informational, and tangible social support. These dimensions of support outline how an athlete can receive assistance throughout his or her injury rehabilitation. Clearly, the attitudes and beliefs about a person's social support system (i.e., perception of social support) can have considerable impact on the recovery process (Rolland, 1984).

In order for support to be effective, there needs to be continuity between the athlete's need for a specific type of support (emotional, informational, and tangible) and the support that is given. According to Sarason, Sarason, and Pierce (1990), social support can have a beneficial effect if it is appropriately matched to the specific needs elicited by the stressor. For injured athletes, the stressor most likely is the injury and rehabilitation. Other findings (Albrecht & Adelman, 1984) have suggested when an athlete seeks support from potential providers, these providers not only need to recognize the athlete's request for help but they also must be willing and capable of offering the type of support necessary. If all of these suggestions are fulfilled, then support can be both given and received effectively.

Social support will not facilitate an athlete's rehabilitation unless the athlete perceives the support as beneficial. Rosenfeld and Richman (1997) argued that athletes will not perceive social support as beneficial unless they first recognize the type of support being given, and then believe it is important for their personal well-being. Sarason, Sarason, and Pierce (1990) found that when the recipient of social support perceives that the support provider is interested, empathetic, and committed, the intended support given will be used and helpful. In short, the support available to an athlete will have the greatest positive impact if the athlete's perception of the provided support is positive.

Social support is most effective if properly given and received throughout the entire rehabilitation process; however, support will best facilitate an athlete's recovery when it is given at specific times or circumstances. For example, Evans, Hardy, and Fleming (2000) found that the need for social support is the greatest when the rehabilitation process is slow, when setbacks occur, and when additional life demands place added stress on injured athletes. Regardless of circumstance, Rotella and Heyman (1993) and Silva and Hardy (1991) have stated that social support is imperative in the rehabilitation of the injured athlete and should be a concern to everyone involved in the care and treatment of injured athletes.

Social support is most effective when it comes from a variety of different sources. Athletic trainers (Fisher, 1999), teammates (Shelley, 1999), coaches (Bianco & Eklund, 1999) and family members (Udry, Gould, Bridges, & Tuffey, 1997) can all have a significant impact on an athlete's rehabilitation. A benefit of having multiple sources of social support is the unique type of support that each support "network" is able to offer.

Rosenfeld, Richman, and Hardy (1989) found that coaches, parents, friends, and teammates differed in the types of support they offered. Family and friends of injured athletes were found to offer emotional support, which was identified as a positive source of support to injured athletes. In contrast, coaches and teammates offered institutional support, which was viewed as a negative source of support to athletes during injury rehabilitation because this type of support often offered little emotional support. This could present a problem for athletes who remain in close proximity to teammates and coaches and are separated from their families during rehabilitation. These potentially negative affects of support from coaches and teammates have been contradicted in other studies (Bianco & Eklund, 1999; Shelley, 1999).

Although coaches and teammates can be ineffective sources of social support for an athlete, significant others (i.e., those closest to the athlete) have been found to be a reliable source of social support, especially in times of need (Hobfoll & Stephens, 1990). Hardy and Crace (1993) supported this finding and concluded that effective support is provided by an athlete's closest loved ones. Regardless of the source of support, a social support structure encompassing family, peers, coaches, other injured athletes, and/or therapists is often needed to provide a valuable foundation from which to cope with the hardships of and recovery from injury (Flint, 1991; McDonald & Hardy, 1990; Smith, 1980; Wiese & Weiss, 1987).

The Athlete-Athletic Trainer Relationship

As a result of their regular interaction with athletes, athletic trainers are important individuals in the athletic injury environment. Although other medical professionals such as doctors and nurses have important roles to play with injured athletes (Gregory & Van

Valkenburgh, 1991), athletic trainers are typically the first to hear about concerns of athletes or notice physical or emotional changes in athletes. When an athletic injury occurs, the athletic trainers are often the first to respond. What athletic trainers say to the athlete and how they choose to communicate with the injured athlete immediately following an injury is critical. Wiese and Weiss (1987) found clear communication to be an important responsibility of athletic trainers from the onset of injury and throughout the rehabilitation process. These authors have argued that, via appropriate communication, an athletic trainer can educate the athlete about his or her injury, set rehabilitation goals with the athlete, and effectively monitor the progress of the athlete's rehabilitation – all of which are forms of social support.

In addition to communicating effectively with injured athletes, a positive rapport between the trainer and athlete can further facilitate the athlete's rehabilitation. The trust and confidence an athlete has for his or her athletic trainer can enhance the rehabilitation process (Granito, 2001). After an injury, athletes often lack emotional stability. An athletic trainer can help to calm an athlete's emotions through showing genuine concern to the athlete. Emotional concern, or empathy, from athletic trainers has been shown to provide additional benefits such as increased adherence (Crossman, 1997). Athletes tend to adhere better to their rehabilitation program when they feel their trainer is interested in their well being.

Typically, most athletes want to know what to expect from the rehabilitation process. This knowledge, from an athletic trainer, can help reduce anxiety as well as other uncertainties the athlete might have about rehabilitation (Rotella & Heyman, 1986; Wiess & Troxel, 1986). Understanding the rehabilitation process also increases the

athlete's cooperation with the medical staff and adherence to rehabilitation (Fisher, Mullins, & Frye, 1993). Although the trainers have a responsibility to provide the athlete with information regarding their rehabilitation, the athlete is still responsible for their rehabilitation adherence. Arnheim (1985) stated that athletic trainers need to educate injured athletes so that athletes understand that rehabilitation and full recovery are a joint effort, with the athlete assuming a greater responsibility.

Although athletic trainers cannot control an athlete's rehabilitation adherence, they are able to provide a certain degree of psychological support to injured athletes. Athletic trainers have reported that it is "relatively important" or "very important" to address the psychological aspects of an injury in the rehabilitation process (Larson, Starkey, & Zaichkowsky, 1996; Weiss & Troxel, 1986). Despite the acknowledged benefits of providing psychological services (e.g., goal setting, imagery, relaxation), many athletic trainers are not incorporating these techniques when they work with injured athletes (Larson et al., 1996). The underutilization of psychological services in treating injured athletes may be related to trainers' lack of familiarity and formal education in sport psychology. In order to better educate athletic trainers in sport psychology, Barefield and McCallister (1997) suggested including in-service training, classes and lectures on sport psychology, and role-playing to facilitate the education of the athletic training student. Larson et al. (1996) also recommended integrating applied sport psychology curriculum in the athletic training education.

In addition to providing psychological services to athletes, it has been suggested that athletic trainers be a central part of networking and coordinating peer modeling (Wiese & Weiss, 1987). Wiese and Weiss (1987) described peer modeling as connecting

an injured athlete with another athlete who has recovered successfully from a similar injury. Since trainers are often aware of athletes who have similar injuries, they could be an effective liaison for injured athletes. Informational, emotional, and tangible support are likely to be provided through the interaction of the two athletes. Hardy and Crace (1993) recommended that trainers create a peer model bank of athletes who have agreed to talk with injured athletes about their rehabilitation experiences. It has also been recommended that trainers establish support groups for injured athletes (Wiese & Weiss, 1987). These types of support groups are beneficial to injured athletes because it allows athletes to discuss their injury and rehabilitation processes. Injured athletes in support groups tend to feel a sense of camaraderie since they can talk to others who have gone through or are currently experiencing an injury similar to their injury (Wiese & Weiss, 1987).

Injured Athletes' Cognitive Appraisal

An athlete's response to an injury is based on the athlete's perception, or cognitive appraisal, of the injury (Brewer, 1994; Wiese-Bjornstal, Smith, Shaffer, & Morrey, 1998). This cognitive appraisal response then influences an emotional response, such as shock, anger, denial, and depression, and the behavioral outcomes, such as the use of coping skills, rehabilitation adherence, and the use of social support networks. According to Wiese-Bjornstal et al. (1998), response to injury is dynamic and can change over time. Brewer (1994) argued that the cognitive appraisal approach, unlike former traditional models and theories, effectively explains individual differences in response to an injury.

Advocates of the cognitive appraisal model have attempted to explain the range of emotions encountered by injured athletes by exploring athletes' perceptions of the injury experience. The way an athlete interprets and evaluates his or her injury is an important aspect of the emotional and/or behavioral response to the injury experience (Brewer, 2001). If the athlete perceives the injury as a possible threat to his or her participation in sport, he or she will likely experience a negative emotional and/or behavioral response. However, a negative response is not likely if the appraisal of the injury is positive and the athlete believes that he or she is able to effectively cope with the injury experience (Kerr & Miller, 2001). According to Gayman and Crossman (2003), cognitive appraisal is influenced by an array of personal and situational factors. These factors have been, and continue to be, evaluated through ongoing qualitative research (Brewer, 2001; Rotella & Heyman, 1993; Smith, Scott, O'Fallon, & Young, 1990).

As a result of the in-depth information gained from such research, qualitative research designs are widely believed to be more successful than quantitative designs in explaining the experiences of injured athletes. A well known qualitative research study examining injuries suffered by elite skiers on the United States Ski Team (Gould, Udry, Bridges, & Beck, 1997), consisted of in-depth interviews with 21 skiers who suffered season ending injuries. A season ending injury was operationally defined as one that prevented a skier from completing a ski racing season and kept the athlete off his or her skis for at least three months. The investigators found the following general dimensions associated with and impacting athletes' psychological responses to injury: perceived benefits of the injury (e.g., a break from rigorous training schedules, additional time to spend with family and friends), stress associated with rehabilitation demands, physical

concerns, fear of re-injury, coping strategies, and social ties with significant others.

Bianco, Malo, and Orlick (1999) also interviewed elite skiers from the Canadian Alpine Ski Team, and concluded that injured athletes progress through an injury-illness phase, rehabilitation-recovery phase, and return to full activity phase. These three phases were characterized by a set of events (i.e., the decision to receive treatment and the decision to return to full activity) that influenced the athlete's emotional and cognitive responses to their injury.

Suinn (1967) believed an athlete's cognitive appraisal and response to his or her injury was dependent on three factors. The first factor was the injured athlete's prior psychological level of functioning. The second factor included the nature of the injury, which include the location of the injury, the severity of the injury, the duration of rehabilitation, and the changes in the athlete's lifestyle as a result of the injury. The third factor involved the meaning of the injury to the athlete. Suinn emphasized that the emotional reactions experienced by the injured athlete will likely be individualized; a finding that has been confirmed many times since (Brewer, 1994; Danish, 1986; Nideffer, 1989).

Another theory that addresses an athlete's information processing and appraisal during an injury is the transactional theory developed by Lazarus and Folkman (1984). This theory incorporates an individual's cognitive appraisal of stressors into the stress response. This theory emphasizes that a person's belief about and appraisal of an event plays a central role in how the person reacts to the event. The four components of the transactional theory are: 1) increased awareness, 2) information processing and appraisal, 3) modified behavior, and 4) peaceful resolution. According to Lazarus and

Folkman, information processing consists of primary and secondary appraisal. Primary appraisal assesses the existing harm or loss that the stressor elicits. This would include the negative effects of the injury to the athlete. The secondary appraisal determines coping strategies that can reduce the stress reaction from the primary appraisal of harm or loss. Lazarus' transactional theory has been modified to apply to athletic injury and to help explain the cognitive appraisal process that athletes follow after suffering an injury (see Andersen & Williams, 1998; Grove & Gordon, 1992; and Seaward, 1994 for more information on the transactional theory applied to the injury experience).

Injured Athletes' Emotions Upon Returning to Competition

Petitpas and Danish (1995) concluded that the most common reactions to athletic injury are identity loss, fear and anxiety over the recovery process, and lack of confidence in skills, which all can lead to performance decrements following a return to competition. Although some or all of these reactions are present during the initial onset of injury, many emotions carry over after rehabilitation has concluded and competition has resumed. Even if these fears are not justified, they will seem very real for the athlete (Russell, 2000). An injured athlete often suffers changes in anger, tension, and depression before he or she progresses toward a stable emotional state and return to sport (Smith et al., 1990).

An athlete's self-concept, or how they feel about themselves, can also be impacted when an injury occurs and upon returning to play. Some injured athletes experience a loss of personal identity when injured (Gayman & Crossman, 2003). In fact, athletes who have made extensive commitments to their sports are the most vulnerable to ego-identity loss and eventual depression (Elkin, 1981). Danish (1986)

believed that the athlete's belief system, values, self-concept, emotional balance, and social and emotional functioning could be influenced by the level of personal identification with sport roles.

Following injury, many athletes experience feelings of loneliness and separation (Crossman & Jamieson, 1985). An injured athlete may feel isolated because of his or her inability to participate in practices and games. An athlete's social support system and interaction with the team is usually lost as a result of an injury. Some athletes will purposely avoid contact with their team when they are injured because they feel guilty for letting their teammates and coaches down (Petitpas & Danish, 1995). Various doubts, worries, and fears can all develop when an injured athlete becomes lonely and feels separated from a team.

Feelings of separation often lead to self-doubts as the athlete prepares to return to sport (Heil, 1993). The doubts, worries, and fears that some athletes experience upon return to competition can be attributed to thought patterns regarding: a) a fear of reinjury; b) an isolation from teammates and coaches during an injury; c) a fear an incomplete physical recovery; d) thoughts about not being able to regain a starting position on their team; e) the temporary loss of their "athlete" status; or f) a fear of a poor performance upon return to competition. Weiss and Troxel (1986) concluded that injured athletes were inclined to concentrate on irrational thoughts rather than positive and realistic thoughts when coping with injuries. Injured athletes have also been found to overestimate the seriousness of their injury, perceived pain, feelings of inadequacy, anger, apathy, loneliness, and anxiety (Crossman & Jamieson, 1985). These faulty perceptions

can influence an athlete to feel trapped and controlled by their injury (Weiss & Troxel, 1986).

Fear and anxiety are two common emotions that athletes experience upon return to competition (Rotella & Heyman, 1993). Athletes often ask the following questions: Will I recover? Will I ever play again? Will I be good enough to regain my starting position? In most cases, these doubts lead to behaviors that adversely affect the healing and rehabilitation process (Rotella & Heyman, 1993). Athletes can feel hopeless while dealing with the stress and uncertainty of their recovery, which can lead an athlete to become externally controlled by their injury (Weiss & Troxel, 1986). The additional time that injured athletes have when injured can be detrimental to their psychological recovery from injury. According to Weinberg and Gould (2003), an injured athlete has the added time to experience feelings of worry and anxiety since they are not able to practice and compete.

Many injured athletes also experience a lack of confidence when returning to competition. Athletes may lose confidence after suffering an injury because their physical status makes them unable to practice and compete in game situations (Weinberg & Gould, 2003). Lowered confidence can result in both decreased performance and motivation when the athlete returns to competition. Rotella and Heyman (1993) pointed out that some injured athletes returning to competition lose the spontaneity and assertiveness they once possessed. As a result, an athlete's cautious play will turn into performance decrements, which can further erode confidence and lead to more stress and frustration (Rotella & Heyman, 1993).

A commonly cited model in the psychology of injury literature is that of Kubler-Ross' (1969) stages of bereavement applied to the injury and rehabilitation processes. According to this model, an injured athlete passes through five typical stages: denial, anger, bargaining, depression, and acceptance. Kubler-Ross argued that denial is the initial reaction. Denial is often manifested after an injury when an athlete has difficulty believing that he or she is injured or the severity of the injury suffered. After reality sets in, anger is triggered and is sometimes expressed by lashing out at those who are closest to the athlete (e.g., parents, friends, boyfriend/girlfriend, etc.). Bargaining is typically used by an injured athlete as a final coping strategy and involves bargaining with a coach, trainer, and/or God. Depression often results when an athlete's rehabilitation begins to plateau or when additional setbacks occur. Finally, over time athletes are believed to accept the injury and return to their former self, physically and psychologically. Nideffer (1989) stated that the length of time required for an athlete to progress through each stage of the Kubler-Ross model depended on the emotional stability of the individual, the importance of the injury to career plans, and the reactions of significant others.

Summary

Social support, the athletic trainer's role in the injury and rehabilitation process, and the athlete's cognitive appraisal and emotions upon returning to competition influence the injury, rehabilitation, and return to play processes. These factors can either facilitate or hinder an athlete's rehabilitation and psychological preparation for an upcoming athletic season. It is important to note that while not all injured athletes experience difficulties with these cognitive and behavioral factors during rehabilitation, research suggests that appropriate levels and interaction among these factors are critical

in the athlete's preparation for their respective sport (Brewer, 2001; Crossman, 1997; Evans et al., 2000; Weiss & Troxel, 1986).

Positive social support enhances mood state, reduces stress, improves treatment adherence, and increases motivation for rehabilitation (Weinberg & Gould, 2003). In order for support to be effective, the athlete's need for a particular type of support (emotional, informational, and tangible) must match that which is provided. Social support will not facilitate an athlete's rehabilitation unless the athlete perceives the support as beneficial. According to Sarason, Sarason, and Pierce (1990), social support will have a beneficial effect if the support received is appropriately matched to the specific needs elicited by the individual.

The athletic trainer has an important role in the athlete's successful rehabilitation from injury. Athletic trainers are in an ideal position to provide psychological support to injured athletes. Emotional concern, or empathy, from athletic trainers has been shown to increase adherence (Crossman, 1997). One of the athletic trainer's primary responsibilities is to provide the injured athlete information regarding his or her injury. This knowledge can help reduce anxiety and clarify other uncertainties the athlete might have about his or her rehabilitation and return to play (Rotella & Heyman, 1986; Weiss & Troxel, 1986).

Cognitive appraisal is used to describe how athletes respond to or perceive an injury (Brewer, 1994; Wiese-Bjornstal et al., 1998). This cognitive appraisal response then influences an emotional response from the athlete, which can include shock, anger, denial, and depression. These emotional responses then impact one's behavioral outcomes, such as the use of coping skills, rehabilitation adherence, and the use of social

support networks. An athlete's perception is critical in determining whether or not he or she develops various doubts, worries, or fears upon returning to competition.

Injury rehabilitation can place a strain physically and psychologically on an athlete. For many injured athletes, challenges remain even when they are physically "recovered". As a result of an injury, many athletes develop self-doubts about returning to sport (Heil, 1993). Doubts, worries, and fears can adversely affect an athlete's performance upon returning to play. These emotions, as well as other cognitive and behavioral factors experienced as a result of injury, often have a significant impact on the athlete's return to competition.

Chapter III

METHODS AND PROCEDURES

The purpose this study was to describe the cognitive and behavioral factors that influenced an athlete's current sport season preparation following a previous season ending injury. Student-athletes, the athlete's primary athletic trainer during rehabilitation, and a significant other (e.g., roommate, friend, parent, boyfriend/girlfriend) were interviewed to assess and describe the athlete's injury rehabilitation and preparation for return to competition. This chapter describes the a) research design, b) subject selection, c) test instrument/procedures, d) data analysis, and e) establishing trustworthiness.

Research Design

A retrospective qualitative research design, utilizing an in-depth semi-structured interview format, was developed to assess each injured athlete's injury experience, as perceived by the athlete, their primary athletic trainer, and a significant other. The design of the current study was similar to that of a phenomenological research design, which entails describing one's experiences by attending to an individual's perceptions that flow from their own conscious awareness of a particular event (Husserl, 1962). Qualitative methods enable the researcher to study selected issues, such as injury and rehabilitation, in-depth and with detail (Patton, 1987). Additionally, qualitative methodologies aim to capture the richness of subjects' experiences in their own words and allow the researcher to understand the experiences as seen, felt, and experienced by the subjects. A qualitative design permits the researcher to focus on the subjects' descriptions to questions and allows for probing into specific aspects of those descriptions. Data, in qualitative

methodologies, are made up of subjects' verbal descriptions of their experiences, perceptions, opinions, feelings, and knowledge (Patton, 1987).

Subject Selection

Ten athletes were initially interviewed for the current study. From those interviews, five ($n=5$) athletes were non-randomly and purposively selected to be interviewed for the current study. The researcher used two qualifications to select which athletes would participate. First, in order to diversify athlete selection, athletes of both genders who played different sports were chosen. In other words, five football players who experienced season ending injuries were not deemed advantageous for the current study. Second, athlete interviews that displayed in-depth answers to open-ended questions were considered favorable as opposed to those interviews that included less depth and fewer words or phrases. Specific content was not a determining factor in athlete selection. For each athlete interviewed, their primary athletic trainer, and a significant other were also interviewed. A total of 15 interviews were conducted. Athletes were current collegiate athletes, at least 18 years of age, who played a Spring sport for either Ithaca College or Cornell University. To meet the criteria for the current study, all athletes had experienced a season ending injury during their respective 2003-2004 athletic season. Each athlete, trainer, and significant other was interviewed in the early Spring 2005 semester, one year post injury.

The primary investigator was in contact with the head athletic trainer at Ithaca College (Mike Matheny) and Cornell University (Bernie DePalma) throughout the study. The primary investigator provided both athletic trainers with an athlete recruitment statement (see Appendix A), which outlined the requirements for subjects to participate

in the current study. The head athletic trainers then contacted all eligible athletes, given their respective school's 2003-2004 injury records, and gave each athlete the recruitment statement. If the athlete agreed to participate in the study, their contact information was then forwarded to the primary investigator. The athletic trainer responsible for primary care of the athlete when he or she was injured was then contacted to participate. A significant other (e.g., roommate, friend, parent, boyfriend/girlfriend) was identified by the athlete and also contacted by the researcher to participate (see Appendices B and C for athletic trainer and significant other recruitment statements). Once all the subjects agreed to participate in the current study, each was reminded that they would be interviewed using a semi-structured interview guide (see Appendices D, E, and F for athlete, athletic trainer, and significant other interview guides).

Prior to each interview (i.e., for each athlete, athletic trainer, and significant other), the researcher reiterated the nature of the study and the interview procedures. Issues such as confidentiality, anonymity, potential risks, and benefits were discussed verbally with each subject. Next, each subject read and signed an informed consent form approved by the Ithaca College Human Subjects and Research Committee (see Appendices G, H, and I for athlete, athletic trainer, and significant other informed consent forms), which outlined the procedures of the current study. An interview time that was convenient for each subject was then scheduled. All subject interviews took place in the counseling resource room in the Center for Health Sciences Fitness/Wellness Clinic at Ithaca College.

Test Instrument/Procedures

Each athlete was interviewed one time, as close as possible to the onset of their Spring 2005 sport season. The interviews were tape recorded and then transcribed verbatim. The athlete's trainer and a significant other (as identified by the athlete), were also interviewed in order to triangulate the data. These two interviews took place as close as possible to the respective athlete interview. The total participation time for each subject was approximately two hours: one hour for his or her initial interview and one additional hour to confirm the verbatim transcribed interview (30 min.) and to later confirm data interpretation (30 min.). All subjects had the freedom to withdraw at any time or refuse to answer any interview question without prejudice. Finally, demographic information was obtained for each of the five athlete participants (see Appendix J for demographic information sheet) and summarized for all participants (see Appendix K). Once the informed consent was signed and demographic information collected, each subject was given time to ask the researcher any questions he or she had about the interview and process. The interview followed this question and answer session.

Semi-structured interview guides, one for the athlete, one for the athlete's primary athletic trainer, and one for the significant other (refer to Appendices D, E, and F) were used to explore the cognitive and behavioral factors that influenced each athlete's current sport season preparation following their previous season ending injury. According to Patton (1987), the interview guide gives the researcher an outline of questions that are relevant to the research question while allowing the researcher the freedom to probe, explore, and ask follow-up questions that might help clarify the subject's answers to questions asked by the researcher. The development of the interview guide was a

detailed process that entailed creating open-ended questions based on existing literature reviews, personal preferences, and colleague collaboration. Revisions were made to ensure that each question was not biased in potentially leading the subjects to answer questions a particular way. Revisions were also made as a result of discussions with the researcher's advisor and through mock interviews with fellow graduate students.

All interviews were tape recorded with the subjects' written permission. At the end of each interview, the tape recorder was turned off and the researcher talked with each subject about the study and his or her impressions of the questions that were asked during the interview. This period was designed to "debrief" the subjects after the interview and answer any additional questions they might have had.

Within a week of each interview, the researcher transcribed verbatim each interview into a typed document. A second meeting time was scheduled with each athlete, trainer, and significant other to review the transcription for accuracy and to clarify any responses that were vague or confusing to the researcher. At this time, each subject had the opportunity to review the answers that he or she provided during their initial interview.

Data Analysis

Data was analyzed following a modified six-step qualitative process used by Shelley (1999). Each interview resulted in an inductive content analysis of the verbatim transcribed data. This type of analysis allowed for themes and patterns to emerge from the data as the data analysis process occurred. The following data analysis steps were conducted:

1. Each transcribed verbatim interview (i.e., from each athlete, trainer, and significant other) was read multiple times by the researcher to grasp a general idea of the information obtained.

2. Each transcribed document was then examined for significant statements. These significant statements were extracted from the transcribed documents. Shelley (1999) described significant statements as responses that directly relate to the overall research question. A significant statement was identified as any response that was directly related to the overall research question; specifically, any cognitive and/or behavioral factors that might have influenced the athlete's current sport season preparation following their previous season ending injury.

3. Meaning units were then formulated from the significant statements. The researcher combined extracted significant statements with other similar significant statements and summarized them into a meaning unit that best described all of the combined similar statements. Although the researcher identified meaning units through combining similar significant statements, meaning units were derived from many of the exact words and phrases that were found in the various significant statements.

4. The formulated meaning units were then synthesized into clusters of lower-order themes. The numerous meaning units were repeatedly read and similar meaning units were grouped together and summarized by a lower-order theme statement. Again, although the researcher identified the lower-order themes through combining similar meaning units, they were derived from many of the exact phrases and words that were found in the meaning units.

5. The clusters of lower-order themes were then synthesized into higher-order themes. Once the data were categorized into lower-order themes, the researcher compared them and developed higher-order themes, which served as descriptors of the combined lower-order themes. The higher-order themes represented the answer to the research question for that particular individual. The formation of higher-order themes was the final data analysis step conducted for each individual interview.

6. After all 15 interviews (i.e., 5 athletes, 5 trainers, and 5 significant others) were analyzed following the aforementioned steps, the higher-order themes for each subject were then compared across participants in order to identify the “common themes” in relation to the cognitive and behavioral factors influencing each athlete’s current sport season preparation. Higher-order themes for each athlete participant were compared with the higher-order themes identified for their corresponding athletic trainer and significant other. Higher-order themes from an athlete’s athletic trainer and significant other, regarding their perceptions of the athlete’s injury experiences, were utilized to compare and contrast higher-order themes identified for each athlete. In other words, athlete participants were the primary data sources while athletic trainer and significant other participants were the secondary data sources. Common themes are presented in Chapter 4 as the results of the current study and the answer to the overall research question.

These steps allowed the data to be organized and described so that it was manageable and understandable for the researcher, which is crucial to the trustworthiness of qualitative data (Patton, 1987).

Establishing Trustworthiness

Qualitative methodologies require the researcher to follow the study's design, establish credible testing procedures, and maintain rigor at all times throughout the study. According to Shelley (1998), rigor pertains to a researcher's discipline, adherence, and accuracy in identifying the problem, designing the research, and analyzing the data. It requires objectivity and conciseness on the part of the researcher. Rigor helps to establish dependability in a qualitative study. Dependability refers to the interpretation of the results that can be considered trustworthy (Patton, 1990).

The trustworthiness of a study can be enhanced through triangulation. Triangulation is a means of enhancing credibility by building checks and balances into a design through multiple data collection strategies. Using more than one data collection approach permits the researcher to strengthen the data (Patton, 1987). Triangulation increases the validity of a study and helps compensate for potential weaknesses. For example, one weakness in the present study may have been the limitation of human memory. Since the interviews were retrospective, athletes may have had a difficult time recalling past events and their feelings associated with their injury, rehabilitation, and preparation for their upcoming athletic season. In the current study, triangulation of data sources helped to compensate for this weakness through the perspective, insight, and observation offered in interviews of two other sources (i.e., athletic trainer and significant other) that spent time with the athlete throughout their injury and rehabilitation. Triangulation of data sources occurred through athlete, trainer, and significant other (e.g., roommate, friend, parent, boyfriend/girlfriend) interviews.

Trustworthiness was also enhanced through member checks, the use of a study auditor and peer debriefer, and by adhering to the aforementioned data analysis steps. Member checking occurred through allowing each participant to review the verbatim interview transcript for accuracy and to clarify any responses that were vague or confusing to the researcher. The study auditor, Dr. Greg A. Shelley, oversaw the data collection and data analysis procedures to help ensure confidentiality and the accuracy of the data analysis process.

After all the significant statements, meaning units, lower-order themes, and higher-order themes emerged from the verbatim documents, a peer debriefer (a peer graduate student) was given the analytical steps to interpret. A peer debriefer helped establish trustworthiness in the current study by holding the researcher accountable for the data management and interpretation of data. The peer debriefer regularly challenged or questioned the researcher's decisions and conclusions that were made during the analytical process. Green (1994) depicted the peer debriefer as one who helps enhance methodological quality and data integrity in the research process.

Thick description of the data was the final means to establishing trustworthiness. Thick description included using specific details, meanings, feelings, contexts, and emotions. Data that is described in such a way enables others to better understand and draw their own interpretations (Patton, 1990). Denzin (1989) believed that the rigor involved in qualitative analysis is dependent upon the researcher's representation of "thick description", or solid descriptive data. According to Patton (1990), thick description in the data analysis process organizes the information so that is manageable and easily identifiable.

Chapter IV

RESULTS

Five hundred forty-three significant statements by the five athlete participants formed the basis for the inductive content analyses. These statements varied in length from a few words to several sentences. The analyses indicated that the participants described both positive and negative aspects of their injury rehabilitation. Social support and talking with other athletes who experienced the same injury were beneficial to athletes, while watching practices and games were difficult for the athletes. Biographical sketches for each of the five participants can be found in Appendix K. Higher-order themes (see Appendices L – P) were identified for each of the participants and are reported below.

Higher-Order Themes for Athlete 1

THEME #1: Rehab was a long and mentally tiring process, however, her trainer, parents, family, friends, and teammates showed concern and support.

The length of her injury rehabilitation and the support she received can best be summarized by the following statements:

It [rehab] was kind of a long process...It [rehab] was just mentally, really tiring... As far as support goes, I think having [the trainer] and everyone to work with here [helped]. [the trainer] has been amazing. I don't know what I would have done without her...She just worked with me and kept reminding me that I would be back eventually... Looking back on it, I really don't think I would have gone back to playing if I hadn't had their [the trainer's] help...My dad especially kind of knows what I was going through...He tried to keep it in perspective for me...My boyfriend has been really great too just telling me how admirable it is and how proud he is of me that I've been working so hard...The girls [on the team] were all so supportive...I think the biggest thing for me was they [teammates] kept telling me how much they missed having me on the field...I think it's reassuring, more than anything, to have people ask about your injury. (Athlete 1)

THEME #2: Although it was hard watching practices and games, being back with the team after her injury made her feel better because her teammates and coaches showed support and included her in functions.

This theme was depicted through the following comments:

It [watching] was hard, definitely...Especially in games, because sometimes I just wanted to be out there...I would be dying to get out there...If we weren't playing so well or if we were losing, I just wanted to get in there....You always want to try and contribute to the team...Practices were difficult too...Sometimes it just sucked being up there and seeing everyone else playing...I came back for the second half of preseason and just being there made me feel so much better...It made me feel so much better to just be around the team...They [teammates] were great in making sure that I was involved with everything...Just little things like when we ordered sweat suites as a team, just making sure that I got one too...They kept reminding me that they realized that I wasn't there and it affected the team and that they wanted me to come back as soon as possible....Obviously, it feels good to know that you feel missed and you're a big part of the team.
(Athlete 1)

THEME #3: Her injury caused a change of plans, required time for rehab, was painful and more difficult mentally to deal with compared to her previous injury, and it [the injury] was a big decision to go through with the rehab process again.

This theme was evident in the following statements:

It [the injury] was in the beginning of the summer and basically changed all the plans that I had for the summer...I was planning on spending the summer in Massachusetts with family and friends, but when I had the surgery, I ended up going down back to Florida...It was difficult having to change my plans...I had torn my ACL in my other knee four years before in my sophomore year in high school...This injury was a lot harder because I also had the MCL and the meniscus to deal with...Mentally it was harder because when I tore my ACL in my left knee, I kind of thought it was my big injury and I got it over with...This time, it was much more of a mental thing...I was like, ok it happened again...My rehab for my other knee was just so easy compared to this...After going through the whole [rehab] process the last time, it was a big decision even to decide if I wanted to go through it again...I have been playing soccer for so long that I didn't want to give it up...I kind of said that I'll try and get through this [rehab] and I'll try to play again. (Athlete 1)

THEME #4: Her second surgery was scary; she felt behind in her rehab because she was comparing her progress with her previous injury and to other athletes' ACL rehab and believed she would earn a starting position next season if she worked hard in rehab and got back into shape over the summer.

This was illustrated by the following excerpts:

I had it [the second surgery] here at school, which was also tough... It was really scary, but I was definitely glad that I had the second surgery...It was frustrating because there were other girls that I'd see in the training room who had the same injury...I would see them doing something and I'd think that I should be at that point...It was pretty frustrating because I was kind of behind and I was comparing it [rehab] to my other knee and where I saw other people at...I think it's just going to come down to how hard I work this summer to get back into game shape and eventually be starting again. (Athlete 1)

THEME #5: She was nervous, scared, and hesitant about returning to play, thought coming back to play was a mental thing, feared that she would get hurt again, and believed that she would feel more comfortable after she got her strength back.

Her feelings about returning to play were summarized by the following statements:

I'm just nervous because I haven't really gotten the strength back completely in my right leg...Once I get out on the field, I think it's going to be pretty scary... It's [returning to play] just going to be a mental thing more than anything else...I think I'm going to be thinking about it a lot more when I'm on the field... Knowing that it [ACL injury] happened again, it makes me really nervous to going back to playing again...Just thinking about it is kind of hard...My knee feels really stable, but I still have to get the strength back in my leg...It's going to take getting back to 100 percent physically to help me get comfortable again. (Athlete 1)

Higher-Order Themes for Athlete 2

THEME #1: Although it was difficult spending time at football when he was injured, he worked hard in his rehab and was back the day after his injury, while knowing immediately after his injury occurred that he injured his ACL and he would be out for a long time.

The following statements depicted Athlete 2 and his rehabilitation immediately following his injury:

As soon as it happened, I pretty much knew that it was an ACL tear... I rolled over in pain and just thought right away that it's six months... I was pissed because I knew it when it happened that I was going to be out for a real long time... I was back at rehab the day after [the injury occurred] to start rehabbing and getting ready for surgery... I've worked real hard in my rehab... I was coming into rehab early and then had to stick around at practice... It was almost like I was spending more time at football now that I was injured than when I wasn't injured... I didn't really like it because I spend a lot of time with football as it is... Spending more time when you're doing less was kind of rough.
(Athlete 2)

THEME #2: It was difficult for him to stand on the sidelines and watch everybody play while not being able to do anything and having teammates treat him different because they felt like he was "giving up."

This was illustrated by the following excerpts:

The most difficult part was standing on the sidelines and just watching everybody else playing and have fun with what they're doing... I was sitting on the sidelines itching to play, but I couldn't do it... It was kind of hard considering I couldn't do anything at most practices... Not playing in games really was rough... It seemed like some guys felt like I was giving up on them and I really wasn't, I just couldn't go... [teammates would] treat you different because you're not part of practice... You're standing on the sidelines and there's little interaction between the sidelines and the field... It's a little secluded. (Athlete 2)

THEME #3: He found support through friends, teammates, trainers, and having another athlete in rehab with him, but did not receive support from the coaching staff.

The theme was expressed in the following narrative:

My parents, friends, teammates, and trainers were all really supportive...My parents were helpful with stuff...When I was at home after my surgery, I had friends over every day watching movies with me...That was really nice. My interaction with the team was good and everybody was real sympathetic about it [the injury]....The student trainers were real helpful...I never used to be a training room person, but now I hang out there all the time because I know them all pretty well...They pushed me, but when I was having troubles they went to the coaches for me and said this kid is having troubles.... I really appreciated that...It was hard because our coaches went through a [coaching] change...Our entire coaching staff switched over and they [new coaches] have never seen me play...It's not like they have much invested interest because if I come back and I'm good, then it's a benefit for them...But, they're almost not counting on it. (Athlete 2)

THEME#4: The injury process was frustrating, depressing, hard, long, and slow, and when he attempted to return to play, he could not do what he used to do. He did come to terms with his injury, felt great, and was looking forward to Spring ball.

The following statements illustrated the mixture of emotions that this athlete experienced:

It [the injury] sucked and was hard...It was pretty frustrating and depressing because you realize that you can't even run for six months...It was a long, slow process to come back...When I came back, it was real rough because I couldn't do half the things I use to be able to do carefree...The worst part about it was this year when I tried coming back at practice to play and I knew to myself that it wasn't my style of play...I couldn't move and it was really laborious...I've come to terms with it so I'm happy...I'm feeling great and I'm really looking forward to the Spring. (Athlete 2)

THEME#5: He was worried about his endurance and the condition of his knee, was hesitant, and was praying that another ACL injury did not happen again.

This is indicated through the following statements:

Right now I'm worried about the condition of my knee...I almost have the strength back to where it was before surgery...One thing I worry about when I'm using it is if it's going to get tired...I had more problems when I started running a lot while playing basketball in December...Endurance is what I'm worried about...When I'm going to practice day in and day out, is it [my knee] going to wear down on me?...I'm just praying it [another ACL injury] doesn't happen again...If I had a serious injury again, I would basically have to hang it up and call it quits, which would be rough...It's something that was in my mind every time I was rehabbing...The one thing I always said was as long as I don't mess up my knees...My dad played college ball and he has no knees now and can't run or do anything...I don't want to be that way...If it [an ACL injury] happens again, I'll have to call it quits. (Participant 2)

Higher-Order Themes for Athlete 3

THEME #1: She did not want to deal with her injury, wanted an answer to what was wrong, worked through the pain, and because her injury experience was long and frustrating, she decided that if she were to get injured again, she would not say anything to her trainers because she would be scared of losing her senior season.

The following statements summarized Athlete 3 and her injury experience:

I have attempted to come back twice, and this is the third time...It was awful and very frustrating...I kept telling my teammates and coaches and parents that all I want is an answer...Just give me a time, just give me a date...It was just, oh see how it goes and call if it's not better...It's just so frustrating and prolonged...I didn't want to have to deal with it...They [doctors] did a full body scan and found a very large hot spot on my shin...I had pain, but I didn't think anything of it and I kind of just blew it off... I blew it off as shin splints...I have a very high pain tolerance and thought I could work through it and it was no big deal...If I were to get injured again or have something start hurting, I don't think I'd say anything to my trainers...I know that's not the best thing to do, but I'd be so scared of losing my senior year that I'd just keep quiet about it and push through what's left of my career. (Athlete 3)

THEME #2: Although taking on a coaching role and having her teammates try to keep her as involved as possible, it was still hard and even depressing because her teammates were competing and she could not and she felt disconnected even if her

team had a victory; she felt as though she didn't deserve what they accomplished because she didn't contribute.

This higher-order theme was reflected in her following comments:

I took on a coaching perspective [role] and helped them [teammates], which is weird as a sophomore...But, that was as involved as I could be...My teammates especially were great...They tried to keep me as involved as possible...Whether it was making up a dance for a routine, calling me up to watch things, or sitting and conditioning with me...At practices, it was really hard for me to sit there and not do anything...I mean, my teammates were out there competing and I couldn't do anything... I felt slightly disconnected because if we did have a victory, I didn't look at it as mine since I didn't contribute...I always felt that I didn't deserve what they [teammates] accomplished. (Athlete 3)

THEME #3: Her surgery was tough and affected her attitude and daily activities but her trainers and doctors always checked in on her and she was able to talk with other teammates who had the same injury. She wanted to work hard and make a return to show that the support and encouragement that her mom, friends, boyfriend, and coach provided made a difference in her rehab.

This was illustrated by the following excerpt:

I couldn't walk up stairs and I couldn't walk down stairs...I would squat down in front of my refrigerator and not be able to stand back up...It [after surgery] was tough and it affected everything...Sometimes I was so frustrated...[trainer] is making sure I'm doing what I'm supposed to, is always checking up on me, and always making sure that if I have any questions or problems to come to him...Support from people was definitely a big thing because coming back this time, I didn't want to get my hopes up that things would go well...I kind of needed a kick in the butt when it came time to pushing myself...It made me work that much harder to get back not only to prove to myself that I could do it, but to show them [family, friends, boyfriend, coach] that they made a difference... Because they really did help. (Athlete 3)

THEME #4: With her adrenaline flying high upon a return to competition, she projected that she would be nervous because she had not competed in so long,

worried that she would not meet her own and other people's expectations, and thought that she could get hurt again.

Her feelings regarding returning to competition were best summarized by the following statements:

I know my adrenaline is going to be flying high...It's [returning to play] going to be exciting...It'll be like competing for the first time again...As much as I'm going to try not to be, I know I'm going to be really nervous because I haven't competed in so long...Coming back now, I'm worried that I'm not going to reach people's expectations...So that's a lot of pressure...If I happen to fall, I fall...It's not too big of a deal, but at the same time, I know that I'll feel like I've let myself and other people down...In the back of my mind, there's still the thought that I could hurt it again. (Athlete 3)

Higher-Order Themes for Athlete 4

THEME #1: She knew what was happening and was in shock when her ACL snapped because she thought it would never happen to her. After surgery, she felt like an outsider, had a hard time and was frustrated with sitting and watching, adapted to being injured, but wished that her injury could have happened at a different time.

Her experiences were noted in the following statements:

Initially right when it [ACL] snapped, I was saying, no, no, no because I kind of knew what was happening...Right after [the injury occurred], it was a shock... When I came back, I felt kind of like an outsider...Everyone had really started to bond over the winter break...It was hard for me just to sit and watch and see a sophomore, who I think I'm so much better than, start in my spot...I feel like I just got used to being injured and now I really don't remember what it feels like not to be injured...Now, it's just part of me...I just never thought it [an ACL injury] would happen to me...It had happened to a lot of girls, but I never thought it would happen to me...It was really hard just knowing that I have to sacrifice a whole year and being that I'm captain this year...I wish it would have happened my freshman or sophomore year when we had six seniors on the team and I wasn't going to play. (Athlete 4)

THEME #2: Although her parents, pastor, friends, and trainer were helpful after her surgery and her injury helped her become closer with the team, she wished she could have had more support from her coach and believed that certain teammates were excited that she was injured because they got to start.

Her feelings regarding the support she received during her rehabilitation were best summarized by the following statements:

Right after my injury, my family was the best support because I know they genuinely care... They helped me keep everything in perspective and I was able to talk to them and tell them how I was feeling... My pastor at my church back home helped a lot... He just talked to me and gave me some scripture to read, which helped... I think that my friends were a big help too... They just kind of told me that they were there... The trainer was really supportive... She was new this year, but now she and I are very close... The team was sympathetic, but I think deep down inside some people were like, "Sweet, I get to start now".... She [coach] needed me to play, so the first thing she asked was, "Can you play on it? Let's get a doctor to see if you can play"... She tried to kind of help me, but she didn't ask me how I felt or what I wanted to do. (Athlete 4)

THEME #3: While trying to stay positive in front of her team and be enthusiastic at practices, she felt worn out, felt like practices were routine and she could not do anything right, that she was not getting anywhere, and that it was just easier to be angry and upset.

This theme was illustrated by the following excerpts:

In the beginning I felt like I was still into the practices because I was right there and I was real enthusiastic... But now, I feel like it's so routine and I feel like I'm worn out and I'm sitting on the sidelines just saying stuff... I can only say so much... I'm like, what's the point?... I know the right thing to do is to be positive, but it's so much easier to be angry and upset... I can't do anything right now but physical therapy and walking... Right now I just feel kind of helpless... I feel like I'm not really getting anywhere. (Athlete 4)

THEME #4: Everyone always wanted to know how her knee was feeling, but she hated talking about it all the time because she did not want to be looked at as someone who was hurt.

This theme was evident in the following statements:

I feel like people have sympathy for me, but I don't really like that...I don't like when people say I feel so bad for you...Everyone always wants to know what's going on and I just hate having to talk about it all the time...I think just being another girl who tore her ACL...I never wanted to have that stigma attached to me...I really don't want to talk about it [my injury] and I don't want to be looked at as like someone who is hurt...I just want people to look at me like they used to...I think they always bring it [my injury] up because it's an easy conversation starter, but I don't think they really care because they don't know what it's like. (Athlete 4)

THEME #5: Although she was known for her hustle, she was planning to change her game to become more of a finesse player and she was nervous and stressed about getting hurt again, living up to expectations, getting back into shape, getting her speed, agility, and skills back, and hoped that playing again would not feel foreign to her.

These feelings were reflected in the following comments:

I was known for my hardcore hustle all over the place and I don't think I'll be willing to do that anymore...I'm just going to change my game around to be more of a finesse player because I don't think it's worth it to try to get hurt again...I'm kind of nervous and scared about coming back because I think about if another player is going to be out of control and fall on me again...That's the one thing I fear, coming back and then getting hurt again...I'm nervous about getting hurt again and nervous about playing up to my expectations and my team's expectations...I'm really nervous and stressed because I'm a second year captain and feel like there's a lot of weight on my shoulders...I think about just getting my body back in shape, getting my speed and quickness back, and getting my skills back...I hope it doesn't feel foreign to me. (Athlete 4)

Higher-Order Themes for Athlete 5

THEME #1: While he walked off the field, he knew that he tore something in his right elbow. He was upset with his coach's and nurse's response to his injury, felt like he let his team and himself down, and felt the biggest inconveniences to be running from doctor to doctor getting referrals, his insurance company, sleeping, taking showers, going to class, and coming back to school late.

This was illustrated by the following excerpts:

I walked off the field and knew right away that I tore something in my elbow because I could just tell by the way it [my arm] felt...My coach told me that I shouldn't have worked out so much...I was pissed off and haven't returned his calls after that...We [my dad and I] went to the emergency room and the nurse wouldn't take x-rays and didn't think it was serious...We left upset...I let myself down because maybe I shouldn't have let myself pitch that day...I felt like I sort of screwed over my team because in the regional playoffs they needed somebody to pitch in that third game, but I couldn't pitch...The biggest pain was running around getting referrals from doctor to doctor...The other thing that was really a pain was that the insurance company wouldn't cover the surgery because they said it was an unnecessary surgery...I really had a problem sleeping and taking showers was awful because I had to put my arm in a plastic bag...Going to classes really sucked because I couldn't use my arm...Plus I came back late and I was just catching up on everything. (Athlete 5)

THEME #2: As a result of his injury, he felt like an outcast, drifted away from and did not feel a part of the team, was depressed that he could not play, had a difficult time watching practice from the bleachers and even stopped going to practice, felt like everybody forgot about him, and lacked support from his teammates.

His feelings about his interaction with the team after his injury were best summarized by the following statements:

I sort of drifted away from the team...As far as my teammates, nobody really talked to me...It really sucked because my teammates weren't calling me to go out on Wednesday nights and stuff like that...We [the team] ordered warm-up suits and I put my order in, but never got my order...I'm thinking, that maybe

they [coaches and teammates] don't consider me a part of the team...I felt like I was hurt and no one cares...When they started practicing in the Fall, I watched from the bleachers...I felt like an outcast and I didn't want to get in the way...It sucked to sit there and watch...I couldn't really do anything, so I just sort of stopped going to watch the practices. (Athlete 5)

THEME #3: While being cautious and sticking to what he was supposed to do in rehab, he treated his arm as if it was a porcelain doll, shared stories and compared workouts with another athlete who had Tommy John surgery, related to major league pitchers who had the same surgery, and focused attention on every little thing while throwing.

The following statements best summarized his rehabilitation:

I treated my arm as if it were a porcelain doll and just stuck to what I was supposed to do...Before I'd go to bed I'd be in my room and doing the exercises I was supposed to do...I'm taking the steps and being very cautious to make sure I'm not going to do anything that's going to jeopardize my situation...I just sort of pay attention to every little thing now...I know if I want to put some heat on the ball that I can do it no problem...I just have to realize that when I'm warming up, I have to take the extra time to make sure my arm is in the right spot the whole time I throw...I called a kid who had Tommy John surgery...Just to know that it's going on with other people makes you feel good about the surgery.
(Athlete 5)

THEME #4: He was not pleased with the rehab process, thought his trainer was unfriendly and not dedicated to his rehab, felt that he was a pain to his trainer and was often left on his own during rehab, and did not know if he was properly completing his exercises.

This theme was evident in the following statements:

I wasn't too pleased with the rehab process at all...My trainer wasn't the friendliest person in the world and it almost seemed like I was a pain in his ass because I got hurt...It seemed like as soon as I got out of the cast I was on my own...I got a list of stuff to do and he wasn't there with me to make sure I was doing it right...I didn't know if I was doing it right, if I should increase the weight, or if I should do more reps...If you're doing internal and external rotation on a rubber band, there's so many things you can do wrong...I see the guys on tv

that are doing the rehab from Tommy John and they've got somebody there watching them and grabbing their arm and making sure they do it right.
(Athlete 5)

THEME #5: He was out to prove people wrong and vowed not to give up since people did not take him seriously when he said that he was going to be back at 100 percent; and while his greatest concern was not overworking his arm, his mechanics were amazing compared to what they were before, and he felt like he was now more of a pitcher than a thrower.

The following statements summed his return to play:

I felt like people didn't take me serious when I said that I was out to be back 100 percent...I just want to get out there and show that I'll be back and ready to play...I'm out to prove people wrong...My greatest concern is not overworking it [arm]...I'm afraid I'm not going to take enough rest between the next time I'm going to pitch...Before I didn't have good mechanics...Now my mechanics are amazing compared to what they were...I feel a lot more confident because I've concentrated on the change-up, curveball, and I've got a knuckleball now...Now, I feel like I'm more of a pitcher than a thrower. (Athlete 5)

Athletic Trainer and Significant Other Findings

Athletic trainer and significant other interviews were examined using the same six step data analysis process as the athlete interviews. The higher-order themes that emerged from the data were used to either support or refute the athlete findings. Although there was some variability in the responses of the athletic trainers and significant others regarding the injury and rehabilitation of the injured athletes, there were some common findings that emerged from the data, which supported the common themes found from the athletes.

Athletic Trainer Findings

All five of the athletic trainers stated they perceived the athletes to be concerned about regaining their skills upon their return to play and worried about experiencing a re-injury. Athletic Trainer 1 stated, "I think she's [athlete 1] fearful of being hurt again and is nervous that her knee is not stable and it's not going to do what she wants it to."

Athletic Trainer 4 had similar sentiments and said, "I think her [athlete 4] main concerns are if she is going to get the motion back in her leg and if she is going to be able to run normal again." Finally, Athletic Trainer 5 had similar observations and stated, "I believe that he [athlete 5] thinks it's [elbow] not totally back to being completely healthy. I think in the back of his mind he's concerned that he's going to re-injure his elbow."

According to most of the athletic trainers, athletes also appeared to lack confidence and seemed nervous about returning to play. Athletic Trainer 1 stated, "I think she [athlete 1] has some fear and hesitation going back to play. I think right now, [athlete 1] is excited about her progress, but I have a feeling that she's pretty nervous at the thought of going back to playing. We're trying to work on getting her confidence back because I don't think [athlete 1] feels 100 percent confident right now." Similarly, Athletic Trainer 3 stated, "When rehabilitation didn't go well for her [athlete 3], some of the hope and confidence she had in her ability subsided."

Finally, most of the athletic trainers acknowledged that the athletes benefited from talking with other athletes who have experienced a similar injury. Athletic Trainer 2 stated, "Another senior had the same injury and surgery as [athlete 2] almost on the same day. They were together almost the entire time rehabbing and I think that having another person going through the same process made it not as much of a grind for [athlete 2]."

Athletic Trainer 3 stated the following regarding the interaction of Athlete 3 and a teammate who had the same surgery, "I think having that system of being able to talk to somebody really helped [athlete 3]. It helped her [athlete 3] feel like she was not crazy since the same injury happened to her teammate."

Significant Other Findings

All five of the significant others perceived social support to benefit the athlete throughout the injury and rehabilitation process. Significant other 1 stated, "She [athlete 1] had a lot of friends and family around her. I think having that support system really helped. Friends at school were really good at helping her out and I think that was definitely very important." Similarly, Significant other 2 commented, "His [athlete 2] trainers, friends, and relatives were great through everything. He probably had five or six friends come over every night during Christmas break to see how he was doing." Significant other 4 added, "Everyone has been very supportive. People would carry her [athlete 4] crutches, give her rides to rehab, and let her voice her concerns to them. I think she was very appreciative of that."

Most of the significant others observed the athletes to experience frustration during their injury rehabilitation and while watching teammates compete. Significant other 3 stated, "I think it was just really frustrating for her [athlete 3] because she had the first surgery, took time off, and her shin did not heal. It was frustrating for her to go through another surgery and not know if a second surgery would fix everything or not." Significant other 4 commented on Athlete's 4 inability to practice and stated, "I think she [athlete 4] was kind of frustrated having to be at practice for three hours a day and not be

able to do anything. She's a little frustrated because our team isn't doing too well and she can only watch and not to anything about it."

Common Themes

As a result of across subject higher-order theme comparisons and after examining the significant other and athletic trainer findings, six common themes (see Appendix Q) emerged from the data: (1) athletes had difficulty watching their teammates compete while being physically limited as a result of their injuries, (2) athletes found support through their parents, family, friends, teammates, and athletic trainers, (3) immediately after their injuries occurred, the athletes recognized they had experienced a serious injury, (4) upon their return to play, athletes were nervous about getting hurt again and worried about the condition of their injury and regaining their skills, (5) the athletes' injury rehabilitation was a long and frustrating process, and (6) athletes benefited from talking with other athletes who had experienced a similar injury. Each of these themes are discussed below.

COMMON THEME #1: Athletes had difficulty watching their teammates compete while being physically limited as a result of their injuries.

All five of the athletes indicated that it was difficult to watch practices and games when they were injured. Athletes felt frustrated that they could not compete in their sport and had to watch their teammates play from the sidelines. This theme was reflected through the following comments by Athlete 1:

It [watching] was hard, definitely...Especially in games because sometimes I just wanted to be out there...I would be dying to get out there...If we weren't playing so well or if we were losing, I just wanted to get in there....You always want to try and contribute to the team...Practices were difficult too...Sometimes it just sucked being up there and seeing everyone else playing. (Athlete 1)

Athlete 2 gave the following narrative:

The most difficult part was standing on the sidelines and just watching everybody else playing and having fun with what they're doing...I was sitting on the sidelines itching to play, but I couldn't do it...It was kind of hard considering I couldn't do anything at most practices...Not playing in games really was rough...It seemed like some guys felt like I was giving up on them and I really wasn't...I just couldn't go...They [teammates] would treat you different because you're not part of practice...You're standing on the sidelines and there's little interaction between the sidelines and the field...It's a little secluded.
(Athlete 2)

Athlete 3 had similar sentiments:

I took on a coaching perspective and helped them [teammates], which is weird as a sophomore...But, that was as involved as I could be...My teammates especially were great...They tried to keep me as involved as possible...Whether it was making up a dance for a routine, calling me up to watch things, or sitting and conditioning with me...At practices, it was really hard for me to sit there and not do anything...My teammates were out there competing and I couldn't do anything...I felt slightly disconnected because if we did have a victory, I didn't look at it as mine since I didn't contribute...I always felt that I didn't deserve what they accomplished. (Athlete 3)

Athlete 4 described her experiences in the following statements:

In the beginning I felt like I was still into the practices because I was right there and I was real enthusiastic...But now, I feel like it's so routine and I feel like I'm worn out and that I'm sitting on the sidelines just saying stuff...I can only say so much...I'm like what's the point...I know the right thing to do is to be positive, but it's so much easier to be angry and upset...I can't really do anything right now but physical therapy and walking...Right now I just feel kind of helpless...I feel like I'm not really getting anywhere. (Athlete 4)

Finally, Athlete 5 stated the following:

When they [team] started practicing in the Fall, I watched from the bleachers...I felt like an outcast and I didn't want to get in the way...It sucked to sit there and watch...The other thing was just sitting around and not being able to do anything...I couldn't really do anything, so I just sort of stopped going to watching the practices...It kind of sucked just watching games on tv...If I were watching a game and I saw someone out there pitching and they weren't doing well, and I would say, "Oh I could go in now if I was healthy. I could do it, put me in"...But, I can't because I'm screwed...The biggest thing was being at the regional playoff games because it's right by my house and I went to watch...The

bullpen got real thin real quick...They needed that solid third starter and that would have been me. (Athlete 5)

COMMON THEME #2: Athletes found support through their parents, family, friends, teammates, and athletic trainers.

Four of the athletes indicated that they benefited from the support their parents, family, friends, teammates, and athletic trainer provided them during their injury rehabilitation. This theme was reflected in the following quotations by Athlete 1:

As far as support goes, I think having [the trainer] and everyone to work with here [helped]. [The trainer] has been amazing...I don't know what I would have done without her...She walked me through it [the surgery] and my coach came with me to the hospital...She was just amazing through everything...She just worked with me and kept reminding me that I would be back eventually...Looking back on it, I really don't think I would have gone back to playing if I hadn't had their [trainer's] help...My parents were really great and my brothers made it [rehab] a little bit easier...He [my dad] tried to keep it in perspective for me...My boyfriend has been really great too just telling me how admirable it is and how proud he is of me that I've been working so hard...More than anything, it's just reassuring to know that they're [family and friends] interested...The girls [on the team] were all so supportive...I think the biggest thing for me was that they [teammates] kept telling me how much they missed having me on the field. (Athlete 1)

Athlete 2 expressed the support he received in the following statements:

My parents, friends, teammates, and trainers were all really supportive...My parents were helpful with stuff...When I was at home after my surgery, I had friends over every day watching movies with me...That was really nice...My interaction with the team was good and everybody was real sympathetic about it [my injury]...The student trainers were real helpful...I never used to be a training room person, but now I hang out there all the time because I know them all pretty well...They pushed me and when I was having troubles they went to the coaches for me and said this kid is having troubles...I really appreciated that. (Athlete 2)

Athlete 3 had similar sentiments:

[The trainer] is making sure I'm doing what I'm supposed to, is always checking up on me, and is always making sure that if I have any questions or problems to come to him...Support from people was definitely a big thing because coming back this time, I didn't want to get my hopes up that things would go well...I kind

of needed a kick in the butt when it came time to pushing myself...It made me work that much harder to get back not only to prove to myself that I could do it, but to show them [family, friends, boyfriend, coach] that they made a difference...because they really did help. (Athlete 3)

Athlete 4 stated the following:

Right after my injury, my family was the best support because I know they genuinely care...They helped me keep everything in perspective and I was able to talk to them and tell them how I was feeling...My pastor at my church back home helped a lot...He talked to me and gave me some scripture to read, which helped...I think that my friends were a big help too...They just kind of told me that they were there...The trainer was really supportive...She was new this year, but now she and I are very close. (Athlete 4)

COMMON THEME #3: Immediately after their injuries occurred, the athletes recognized they had experienced a serious injury.

When three of the athletes were injured, they knew right away that they had a serious injury. This common theme was reflected in the following quotations:

As soon as it happened I pretty much knew that it was an ACL tear because it had happened to a bunch of other guys on the team....I rolled over in pain and just thought right away that it's six months...I got helped off the sidelines and I think I chucked my helmet...I was pissed because I knew it when it happened that I was going to be out for a real long time. (Athlete 2)

Initially right when it [ACL] snapped, I was saying, no, no, no because I kind of knew what was happening...Right after [the injury occurred], it was a shock...It had happened to a lot of girls, but I never thought it would happen to me...It was really hard just knowing that I have to sacrifice a whole year being a captain this year...I wish it would have happened my freshman or sophomore year when we had six seniors on the team and I wasn't going to play any way...It was kind of hard. (Athlete 4)

I walked off the field and knew right away that I tore something in my elbow because I could just tell by the way it [my arm] felt...My summer coaches didn't really understand what was going on...They were like, "Get back out there" and I'm like, "No I can't"...One of the worst things was one of my summer coaches said, "I told you that you shouldn't have worked out"...I mean right now, you have to work out if you want to keep up the strength...I just looked at him and thought my dad was going to knock him out...I was pissed off and haven't returned his calls after that. (Athlete 5)

COMMON THEME #4: Upon their return to play, athletes were nervous about getting hurt again and worried about the condition of their injury and regaining their skills.

Four athletes expressed that they were nervous and concerned about returning to play. This theme was reflected in the following comments by Athlete 1:

I'm just nervous because I haven't really gotten the strength back completely in my right leg...Once I get out on the field, I think it's going to be pretty scary... It's [returning to play] just going to be a mental thing more than anything else...I think I'm going to be thinking about it a lot more when I'm on the field... Knowing that it [ACL injury] happened again, it makes me really nervous to going back to playing again...Just thinking about it is kind of hard...My knee feels really stable, but I still have to get the strength back in my leg...It's going to take getting back to 100 percent physically to get comfortable again.
(Athlete 1)

Athlete 2 stated the following:

Right now, I'm worried about the condition of my knee...I almost have the strength back to where it was before surgery...One thing I worry about when I'm using it is if it's going to get tired...I had more problems when I started running a lot playing basketball in December...Endurance is what I'm worried about...When I practice day in and day out, is it [my knee] going to wear down on me?...I'm just praying it [another ACL injury] doesn't happen again...If I had a serious injury again, I would have to hang it up and call it quits, which would be rough...It's something that was in my mind every time I was rehabbing...The one thing I always said was as long as I don't mess up my knees...My dad played college ball and he has no knees now and can't run or do anything...I don't want to be that way. (Athlete 2)

Athlete 3 had similar sentiments:

I know my adrenaline is going to be flying high...It's [returning to play] going to be exciting...It'll be like competing for the first time again...As much as I'm going to try not to be, I know I'm going to be really nervous because I haven't competed in so long...Coming back now, I'm worried that I'm not going to reach people's expectation, so that's a lot of pressure...If I happen to fall, I fall...It's not too big of a deal, but at the same time, I know that I'll feel like I've let myself and other people down...In the back of my mind, there's still the thought that I could hurt it again. (Athlete 3)

Athlete 5 illustrated his feelings in the following statements:

I felt like people didn't take me serious when I said that I was out to be back 100 percent...I just want to get out there and show that I'll be back and ready to play...I'm out to prove people wrong...My greatest concern is not overworking it [arm]...I'm afraid I'm not going to take enough rest between the next time I'm going to pitch...Before, I didn't have good mechanics...Now my mechanics are amazing...I feel a lot more confident because I've concentrated on the change up, curveball, and I've got a knuckleball now...Now, I feel like I'm more of a pitcher than a thrower. (Athlete 5)

COMMON THEME #5: The athletes' injury rehabilitation was a long and frustrating process.

Four of the five athletes commented on the rehabilitation process being frustrating, tiring, hard, prolonged, and leading to feelings of helplessness. For example:

It [rehab] was kind of a long process...It [rehab] was just mentally really tiring... It was kind of a long process for recovery because I missed some weeks of physical therapy because I was traveling back to school...Since the beginning of the year, I've been going to see [the trainer] in the training room for at least three days a week...In the beginning of the year, it was five days a week...On top of that, I have to make sure that I'm going to the gym every day lifting and running...It's a time commitment, definitely. (Athlete 1)

It [the injury] sucks and was hard...It was pretty frustrating and depressing because you realize that you can't even run for six months...It was a long, slow process to come back...When I came back, it was real rough because I couldn't do half the things I use to be able to do carefree...The worst part about it was this year when I tried coming back at practice to play and I knew to myself that it wasn't my style of play...I couldn't move and it was really laborious... The Fall was a really frustrating experience and I never thought my knee was going to get better after that...It's been a long time [since I've played]. (Athlete 2)

It [rehab] has been very frustrating...I have attempted to come back twice, and this is the third time...Both first times I was hoping to be fine and pain free again...The second time, especially, I really got my hopes up and nothing happened and I was back to square one...It was awful and very frustrating...I kept telling my teammates and coaches and parents, that all I want is an answer...Just give me a time, just give me a date...It was just, "Oh see how it goes and call if it's not better"...It was just so frustrating and prolonged...I didn't want to have to deal with it. (Athlete 3)

In the beginning, I feel like I was still into the practices because I was right there and I was real enthusiastic...But now, I feel like it's so routine and I feel like I'm

worn out and I'm sitting on the sidelines just saying stuff...I can only say so much...I'm like, what's the point?...I know the right thing to do is to be positive...But, it's so much easier to be angry and upset...I can't do anything really right now, like physical therapy and walking... I feel like I just got used to being injured and now I really don't remember what it feels like not to be injured...Now, it's just a part of me...Right now I just feel kind of helpless...I feel like I'm not really getting anywhere. (Athlete 4)

COMMON THEME #6: Athletes benefited from talking with other athletes who had experienced a similar injury.

Several of the athletes indicated that being able to talk with other athletes who had experienced a similar injury enhanced their rehabilitation experience. This theme was supported in the following statements:

I've talked to a lot of people who have torn their ACLs...It seems like every other person tears theirs...It's supportive and you get a lot of good facts...I would rate how I was progressing against how they progressed...It seemed like I was doing well, so it was nice for that...There's another guy who is going through rehab with me day in and day out...We weren't the best of friends, but it was nice having another person going through that...It made it a lot easier because it [rehab] is a real lonely spot...If the other person wasn't there, I'd just be by myself doing all these exercises and jogging...I'm really happy there is somebody else there to talk to. (Athlete 2)

Athlete 3 had similar sentiments:

If I ever had any questions about how things should feel, what it should look like, they'd [teammates who previously had the same injury] already been there...If it came to should I pull through this, or hold back a little bit, they would have either gone through it, or kind of had the same feelings...We still compare notes. (Athlete 3)

Athlete 5 also expressed similar experiences in the following statements:

A catcher who came to our team last year had it [Tommy John surgery] when he was in high school...I talked to him about it a little bit and we just shared stories...I called another kid who had Tommy John [surgery]...I talked to him on the phone to see where he's at...It was kind of weird because the stuff they [his trainers] had him doing, I'm like, "Holy crap you're doing that already?"...I'm looking at my schedule and I had my ten months planned out for me...And I'm like, "I don't agree with that. [The trainer] is telling me this and you're doing this, how is that good?"...I think somebody else doesn't know what they're doing

there or they [the trainers] don't know what they're doing with me...So, that was nerve wracking...Comparing workouts and knowing that it's going on with other people makes you feel good about the surgery. (Athlete 5)

Non-Common Themes

Although the athletes had common injury and rehabilitation experiences, there were some variations and differences among the athletes. For example, Athlete 1 had difficulty after her injury because she had experienced the same injury two years prior. She continually compared her current rehabilitation to her previous rehabilitation and would get frustrated when she felt that she was not progressing as quickly as her first rehabilitation. Athlete 3 continued to compete even though she was in pain and knew that she was seriously injured. Athlete 4 stated that she became frustrated when people only talked to her about her injury. She also commented that she planned on changing her style of play from aggressive to more cautious in the hope of avoiding another injury. Finally, Athlete 5 was not satisfied with his trainer's support and assistance throughout his rehabilitation. He also stated that he had become a better pitcher through his injury and wanted to prove people wrong by having a successful return to play.

Non-common themes were identified as any higher-order themes that were not included in one of the six common themes that emerged from the data. The following are the non-common themes that were found in the current study:

HOT3A1 Her injury caused a change of plans, required time for rehab, was painful and more difficult mentally to deal with compared to her previous injury, and [the injury] was a big decision to go through with the rehab process again.

HOT4A1 Her second surgery was scary; she felt behind in her rehab because she was comparing her progress with her previous injury and to other athletes' ACL rehab and believed she would earn a starting position next season if she worked hard in rehab and got back into shape over summer.

HOT1A3 She did not want to deal with her injury, wanted an answer to what was wrong, worked through the pain, and because her injury experience was long and frustrating, she decided that if she were to get injured again, she would not say anything to her trainers because she would be scared of losing her senior season.

HOT4A4 Everyone always wanted to know how her knee was feeling, but she hated talking about it all the time because she did not want to be looked at as someone who was hurt.

HOT5A4 Although she was known for her hustle, she was going to change her game to become more of a finesse player and she was nervous and stressed about getting hurt again, living up to expectations, getting back into shape, getting her speed, agility, and skills back, and hoped that playing again didn't feel foreign to her.

HOT1A5 While he walked off the field, he knew that he tore something in his right elbow. He was upset with his coach's and nurse's response to his injury, felt like he let his team and himself down, and felt the biggest inconveniences to be running from doctor to doctor getting referrals, his insurance company, sleeping, taking showers, going to class, and coming back to school late.

HOT4A5 He was not pleased with the rehab process, thought his trainer was unfriendly and not dedicated to his rehab, felt that he was a pain to his trainer and was often left on his own during rehab, and didn't know if he was properly completing his exercises.

HOT5A5 He was out to prove people wrong and vowed not to give up since people did not take him seriously when he said that he was going to be back at 100 percent; and while his greatest concern was not overworking his arm, his mechanics were amazing compared to what they were before, and he felt like he was now more of a pitcher than a thrower.

Each athlete had unique experiences during their injury and rehabilitation experiences. Although most of their experiences were classified by a common theme, a few emotions or experiences were not common and, therefore, were categorized as a non-theme. The non-themes presented are as important as the common themes that emerged from the data and also enhance the existing results to the research question presented.

Summary

Higher-order themes for each athlete and across subject common theme comparisons are presented. In the six common themes that emerged, (1) athletes had difficulty watching their teammates compete while being physically limited as a result of their injuries, (2) athletes found support through their parents, family, friends, teammates, and athletic trainers, (3) immediately after their injuries occurred, the athletes recognized they had experienced a serious injury, (4) upon their return to play, athletes were nervous about getting hurt again and worried about the condition of their injury and regaining their skills, (5) the athletes' injury rehabilitation was a long and frustrating process, and (6) athletes benefited from talking with other athletes who had experienced a similar injury.

Although six common themes emerged from the data, each athlete had unique experiences that influenced their injury rehabilitation. For example, Athlete 1 enjoyed being back with her teammates after her surgery and stated, "It made me feel so much better to just be around the team." Athlete 4, however, had difficulty at practices after her surgery and became "worn out sitting on the sidelines...just saying stuff became routine." In another example, Athlete 3 felt, "[the trainer] was always checking up on me, making sure I was doing what I was supposed to", while Athlete 5 had little contact with his athletic trainer and stated, "It seemed like as soon as I got out of the cast I was on my own. I didn't know if I was doing it [performing the exercises] right." Despite these factors that influenced their unique, individual experiences, the athletes had common experiences, feelings, and emotions regarding their injury rehabilitation and preparation for their return to competition.

Chapter V

DISCUSSION

The purpose of this study was to examine the cognitive and behavioral factors that influenced athletes' current sport season preparation following a previous season ending injury. In the six common themes that emerged: (1) athletes had difficulty watching their teammates compete while being physically limited as a result of their injuries, (2) athletes found support through their parents, family, friends, teammates, and athletic trainers, (3) immediately after their injuries occurred, the athletes recognized they had experienced a serious injury, (4) upon their return to play, athletes were nervous about getting hurt again and worried about the condition of their injury and regaining their skills, (5) the athletes' injury rehabilitation was a long and frustrating process, and (6) athletes benefited from talking with other athletes who had experienced a similar injury. Each of these common themes is discussed in relation to the existing literature.

COMMON THEME #1: Athletes had difficulty watching their teammates compete while being physically limited as a result of their injuries.

All five of the athletes indicated that it was difficult to watch practices and games when they were injured. They felt frustrated in that they could not compete in their sport and in having to watch (from the sidelines) their teammates practice and compete. Suinn (1967) stated that the meaning of the injury to the person will directly influence the athlete's emotional reactions in response to their injury. Suinn emphasized that the emotional reactions experienced by the injured athlete will likely be individualized; a finding that has been confirmed many times since (Brewer, 1994; Danish, 1986; Niedeffer, 1989). In this study, it was evident that all five athletes valued

their participation in their respective sports, and when their participation and involvement was limited, or ceased, the athletes became frustrated. Athlete 2 described the difficulty and frustration he experienced while being injured when he stated the following:

The most difficult part was standing on the sidelines watching everybody else playing and having fun with what they're doing...I was sitting on the sidelines itching to play, but I couldn't do it...It was kind of hard considering I couldn't do anything at most practices...Not playing in games really was rough... It seemed like some guys felt like I was giving up on them and I really wasn't. I just couldn't go. (Athlete 2)

COMMON THEME #2: Athletes found support through their parents, family, friends, teammates, and athletic trainers.

Social support is an important resource for injured athletes during rehabilitation as they cope with an injury. Support can help enhance an injured athlete's mood, reduce stress, improve treatment adherence, and increase motivation for rehabilitation (Weinberg & Gould, 2003). The type and quality of support given, an athlete's perception of the support they receive, and the providers of the social support are all critical factors that will facilitate or hinder an athlete's injury rehabilitation experience. Four of the five athletes in this study acknowledged that the support they received enhanced their injury rehabilitation. For example, Athlete 3 stated the following:

[The trainer] is making sure I'm doing what I'm supposed to, is always checking up on me, and always making sure that if I have any questions or problems to come to him...Support from people was definitely a big thing because coming back this time, I didn't want to get my hopes up that things would go well...I kind of needed a kick in the butt when it came time to pushing myself...It made me work that much harder to get back not only to prove to myself that I could do it, but to show them [family, friends, boyfriend, coach] that they made a difference...Because they really did help. (Participant 3)

According to Hobfoll and Stokes (1988), athletes seek the support of others to help them cope with injury when there is an absence of effective personal coping skills.

In this study, Athlete 4, who was a junior captain on her basketball team, experienced difficulty coping after experiencing an ACL tear. Athlete 4 stated the following:

It was really hard just knowing that I have to sacrifice a whole year and I'm a captain this year...This was going to be the first year I was going to start and actually get playing time...Emotionally that was really rough...I wish it [the ACL injury] would have happened my freshman or sophomore year when we had six seniors on the team and I wasn't going to play...I think about it [the ACL injury] a lot...I think about all that I was hoping to do this year...I've never taken a break and this is my first time taking a break...I don't know what I'm going to do.
(Athlete 4)

Extending one's resource pool enables social support to assist in coping with the stress of an injury by providing a feeling of attachment to others, directly limiting resource loss, and providing for resources that are lost during the injury rehabilitation (Hobfoll & Stephens, 1990). For example, Athlete 4 commented that her parents, friends, and pastor provided support and helped to keep her injury in perspective throughout her injury experience. Silva and Hardy (1991) have also argued that social support is important in the rehabilitation of athletes and should be a concern to those who are directly involved with the care and treatment of injured athletes.

In addition to family and friends, athletes' teammates were found to be beneficial to injured athletes in the current study. Although Athlete 2 was not able to practice during his injury, he benefited from being around his teammates at practices. He stated, "My interaction with the team was good and everybody was real sympathetic about it [the injury]." Athlete 1 had similar sentiments and stated:

I came back for the second half of preseason and just being there made me feel so much better...It's definitely good to be back...It made me feel so much better to just be around the team...They [teammates] were great in making sure that I was involved with everything...They kept reminding me that they realized that I wasn't there, it affected the team, and that they wanted me to come back as soon as possible....Obviously, it feels good to know that you feel missed and you're a big part of the team. (Athlete 1)

Athlete 2 commented that his coaching staff provided minimal support during his injury experience. He stated:

It was hard because our coaches went through a change during that time [of the injury]...Our entire coaching staff switched over...It's almost like they never have seen me play...They don't know what I can do...It's not like they have much invested interest because if I come back and I'm good, then it's a benefit for them...But, they're almost not counting on it...It was frustrating because they [coaches] would say, 'Why aren't you doing this?'...I was thinking, I used to be able to do that, but I can't do it now. (Athlete 2)

The athletic trainer is often in an ideal position to offer social support and they have been found to play an important roll in an athlete's injury rehabilitation (Granito, 2001). Typically, most athletes want to know what to expect from the rehabilitation process. This knowledge from an athletic trainer can help reduce anxiety, as well as, other uncertainties the athlete might have about their rehabilitation (Rotella & Heyman, 1986; Wiess & Troxel, 1986). Wiese and Weiss (1987) found that clear communication is a primary responsibility of athletic trainers during the initial onset of, and throughout, an injury. These authors have argued that, through clear communication, an athletic trainer can educate the athlete about his or her injury, set rehabilitation goals with the athlete, and effectively monitor the progress of the athlete's rehabilitation – all of which are forms of social support. However, in some cases ineffective social support exists. For example, Athlete 5 felt as though his athletic trainer provided little, if any, emotional, informational, and/or tangible support during his injury rehabilitation. He stated the following:

I wasn't too pleased with the rehab process at all...My trainer wasn't the friendliest person in the world and it almost seemed like I was a pain in his ass because I got hurt...It seemed like as soon as I got out of the cast I was on my own...I got a list of stuff to do and he wasn't there with me to make sure I was

doing it right...I didn't know if I was doing it right, if I should increase the weight, or if I should do more reps...If you're doing internal and external rotation on a rubber band, there's so many things you can do wrong. (Athlete 5)

However, the negative feelings Athlete 5 experienced regarding the lack of support from his athletic trainer was not a common theme among all participants.

Overall, the athletes stated that they benefited from the support they received from their trainers. Athlete 1 stated, "[The trainer] has been amazing...She just worked with me and kept reminding me that I would be back eventually...I don't know what I would have done without her." Similarly, Athlete 3 stated, "[The trainer] was making sure I was down there [in the training room], doing what I'm supposed to...[The trainer] was always checking up on me making sure that if I have any questions or problems to come to him." Athlete 4 had similar sentiments and stated, "The trainer was really supportive...She's helped me a lot just keeping things practical...I think she's done a really good job...She actually seems like she cares about what's best for me and my health." Research suggests that regardless of the source of support, a social support structure entailing family, peers, coaches, other injured athletes, and/or athletic trainers is needed to provide a valuable foundation from which to cope with the hardships of recovery from injury (Flint, 1991; McDonald & Hardy, 1990; Smith, 1980; Wiese & Weiss, 1987).

Significant others have generally been found to be a reliable source of social support, especially in times of need (Hobfoll & Stephens, 1990). Hardy and Crace (1993) supported this finding and concluded that the most effective support is often provided by the athlete's closest loved ones. This was also true with several of the athletes in this study and is reflected in the following statement by Athlete 1:

My parents were really great and my brothers made it [rehab] a little bit easier...They would ask me every single day, how my knee was and how rehab

was going... Since I've been at school, when I had the second surgery, they [her mom and dad] both offered to come up and be with me... My boyfriend has been really great too just telling me how proud he is that I've been working so hard. More than anything, it's just reassuring to know that they're [her family and boyfriend] interested. (Athlete 1)

Athlete 3 stated the following:

I called my mom on a weekly basis and said, 'I can't do it [rehabilitation] anymore'... But, she just said, 'You'll be fine, just keep pushing'... My mom just kept telling me to be patient and that it [my shin] will get better... Sometimes I was so frustrated... She was just so positive, and there were times when I wasn't. (Athlete 3)

Similarly, Athlete 4 stated:

Right after my injury, my family was the best support because I know they genuinely care... They helped me keep everything in perspective and I was able to talk to them and tell them how I was feeling... My dad actually flew out three days after I tore it [ACL]... He helped me out around the house and helped me make all the arrangements [for surgery]. (Athlete 4)

COMMON THEME #3: Immediately after their injuries occurred, the athletes recognized they had experienced a serious injury.

Athletes immediately recognized that their injury was serious and that they would be out of competition for an extended period of time, which contributed to a pessimistic outlook regarding their injury and rehabilitation. Athletes commented that after recognizing the seriousness of their injuries, their negative attitudes, along with their injury, made the initial stages of rehabilitation difficult. Athletes also stated that they were in disbelief when their injury occurred. Athlete 4 stated, "Right after [the injury occurred], it was a shock. I just never thought it would happen to me. It had happened to a lot of girls, but I never thought it would happen to me." Athlete 2 stated the following after tearing his ACL:

As soon as it happened I pretty much knew that it was an ACL tear because it had happened to a bunch of other guys on the team....I rolled over in pain and just thought right away that it's six months...I got helped off the sidelines and I think I chucked my helmet...I was pissed because I knew it when it happened that I was going to be out for a real long time. (Athlete 2)

The way an athlete interprets and evaluates his or her injury is an important aspect of the emotional and/or behavioral response to the injury experience (Brewer, 2001). If the athlete perceives the injury as a possible threat to his or her participation in sport, he or she will likely experience a negative emotional and/or behavioral response. However, a negative response is not likely if the appraisal of the injury is positive and the athlete believes that he or she is able to effectively cope with the injury experience (Kerr & Miller, 2001). All the athletes in this study experienced a negative emotional response initially following their injury. For example, Athlete 5 stated:

It [the injury] really sucked because I really didn't know what to do...I always wanted to play baseball, that's always been a dream of mine...I put all my dedication into that and even stopped skiing... Then, just to have that [the injury] happen after two years of working at it at the college level made it seem like I wasted two years...Now I can't do anything else...I guess you could say I was pretty depressed...I was very angry at everything. (Athlete 5)

However, as time passed, the athletes indicated their immediate feelings of shock and disbelief subsided. Scheier and Carver (1985) argued that an individual who exhibits dispositional optimism, or an expectancy for good rather than bad outcomes to occur, will be more likely to persist when faced with difficulties, such as an injury.

COMMON THEME #4: Upon their return to play, athletes were nervous about getting hurt again and worried about the condition of their injury and regaining their skills.

Another result of injury is the self-doubts, worries, and fears that an athlete develops when they return to sport (Heil, 1993). This finding was also supported in the

current study. Four of the athletes stated that although they were physically “cleared” to participate in their sport again, they were nervous and concerned about their return to play. Athlete 1 stated the following regarding her return to play:

I’m just nervous because I haven’t really gotten the strength back completely in my right leg...Once I get out on the field, I think it’s going to be pretty scary...It’s [returning to play] just going to be a mental thing more than anything else...I think I’m going to be thinking about it a lot more when I’m on the field...Knowing that it [ACL injury] happened again, it makes me really nervous to going back to playing again...Just thinking about it is kind of hard...My knee feels really stable, but I still have to get the strength back in my leg...It’s going to take getting back to 100 percent physically to help me get comfortable again.
(Athlete 1)

In a similar way, Athlete 3 stated:

I know my adrenaline is going to be flying high...It’s [returning to play] going to be exciting...It’ll be like competing for the first time again...As much as I’m going to try not to be, I know I’m going to be really nervous because I haven’t competed in so long...Coming back now, I’m worried that I’m not going to reach people’s expectations...So that’s a lot of pressure...If I happen to fall, I fall...It’s not too big of a deal, but at the same time, I know that I’ll feel like I’ve let people down and myself...In the back of my mind there’s still the thought you could hurt it again. (Athlete 3)

Fear and anxiety are two common emotions that athletes experience upon return to competition (Rotella & Heyman, 1993). Athletes often ask the following questions: Will I recover? Will I ever play again? Will I be good enough to regain my starting position? In most cases, these doubts lead to behaviors that adversely affect the healing and rehabilitation process (Rotella & Heyman, 1993). Athlete 2 was concerned about the condition of his knee when he returned to play. He stated: “One thing I worry about when I’m using it [knee] is if it’s going to get tired...Endurance is what I’m worried about...When I’m going to practice day in and day out, is it [my knee] going to wear down on me?” In this case, Athlete 2 perceived his knee to be weak. Although his perceptions may have been correct, injured athletes can often have incorrect perceptions

about the condition of their injury upon their return to play. These faulty perceptions of an injury have been found to influence an athlete to feel trapped and controlled by their injury (Weiss & Troxel, 1986).

Rotella and Heyman (1993) pointed out that some injured athletes returning to competition lose the spontaneity and assertiveness they once possessed. This finding is supported through the following statements by Athlete 4: "I was known for my hustle all over the place and I don't think I'll be willing to do that anymore...I'm just going to change my game around to be more of a finesse player because I don't think it's worth it to get hurt again." In this case, Athlete 4 planned on becoming more cautious. As a result, it is also argued that performance decrements might occur as a result of an athlete's cautious play, which can further erode confidence and lead to more stress and frustration (Rotella & Heyman, 1993).

COMMON THEME #5: The athletes' injury rehabilitation was a long and frustrating process.

Suinn (1967) believed an athlete's cognitive appraisal and response to his or her injury to be dependent on three factors. The first factor is the injured athlete's prior psychological level of functioning. The second factor includes the nature of the injury, the location of the injury, the severity of the injury, the duration of rehabilitation, and the changes in the person's lifestyle as a result of the injury. The third factor involves the meaning of the injury to the person. The duration of rehabilitation and the time commitment required for rehabilitation were factors leading to a long and frustrating experience for Athlete 1. This was evident in the following statements:

It [rehab] was kind of a long process...It [rehab] was just mentally really tiring...
It was kind of a long process for recovery because I missed some weeks of

physical therapy because I was traveling back to school...Since the beginning of the year, I've been going to see [the trainer] in the training room for at least three days a week...In the beginning of the year, it was five days a week...On top of that, I have to make sure that I'm going to the gym every day lifting and running...It's a time commitment, definitely. (Athlete 1)

Athlete 2 stated the following:

It [the injury] sucked and was hard...It was pretty frustrating and depressing because you realize that you can't even run for six months...It was a long, slow process to come back...When I came back, it was real rough because I couldn't do half the things I use to be able to do carefree...The worst part about it was this year when I tried coming back at practice to play and I knew to myself that it wasn't my style of play...I couldn't move and it was really laborious...I've come to terms with it so I'm happy...I'm feeling great and I'm really looking forward to the Spring. (Athlete 2)

Athlete 3 had similar sentiments:

I have attempted to come back twice, and this is the third time...It was awful and very frustrating...I kept telling my teammates and coaches and parents that all I want is an answer...Just give me a time, just give me a date...It was just, oh see how it goes and call if it's not better...It's just so frustrating and prolonged...I didn't want to have to deal with it. (Athlete 3)

Athlete 4 illustrated her feelings in the following statements:

In the beginning I felt like I was still into the practices because I was right there and I was real enthusiastic...But now, I feel like it's so routine and I feel like I'm worn out and I'm sitting on the sidelines just saying stuff...I can only say so much...I'm like, what's the point?...I know the right thing to do is to be positive, but it's so much easier to be angry and upset...I can't do anything right now but physical therapy and walking...Right now I just feel kind of helpless...I feel like I'm not really getting anywhere. (Athlete 4)

Athlete 5 also experienced frustration from physical limitations as a result of his injury.

He stated, "I really had a problem sleeping and going to classes really sucked because I couldn't use my arm...Taking showers was awful because I had to put my arm in a plastic bag."

COMMON THEME #6: Athletes benefited from talking with other athletes who had experienced a similar injury.

It has been suggested that athletic trainers and coaches be a central part of networking and coordinating peer modeling for injured athletes (Wiese & Weiss, 1987). Wiese and Weiss (1987) described peer modeling as connecting an injured athlete with another athlete who has recovered successfully from a similar injury. Informational, emotional, and tangible support are thought to be provided through the connection and interaction of the injured athletes. Hardy and Crace (1993) recommended that athletic departments create a peer model bank of athletes who have agreed to talk with injured athletes about their rehabilitation experiences. Such peer modeling may prove beneficial as was the case with Athlete 2. Athlete 2 stated the following about participating in physical therapy with another injured athlete:

I've talked to a lot of people who have torn their ACLs...It's supportive and you get a lot of good facts...I would rate how I was progressing against how they progressed...It seemed like I was doing well, so it was nice for that...There's another guy who is going through rehab with me day in and day out...We weren't the best of friends, but it was nice having another person going through that...It made it a lot easier because it [rehab] is a real lonely spot...If the other person wasn't there, I'd just be by myself doing all these exercises and jogging...I'm really happy there is somebody else there to talk to. (Athlete 2)

On a similar note, Participant 5 stated, "I called a kid who had Tommy John surgery ...Just to know that it's going on with other people makes you feel good about the surgery."

It has also been recommended to establish support groups for injured athletes (Wiese & Weiss, 1987). These types of support groups can be beneficial to injured athletes because it can allow athletes an opportunity to discuss their injury and rehabilitation processes. Injured athletes in support groups tend to feel a sense of camaraderie since they can talk to others who have gone through or are currently experiencing an injury similar to their injury (Wiese & Weiss, 1987). Although not in a

formal support group, Athlete 3 was able to ask questions and compare her progress in her rehabilitation with other athletes who experienced the same injury. She stated the following:

If I ever had any questions about how things should feel, what it should look like, they'd [teammates who previously had the same injury] already been there...If it came to should I pull through this, or hold back a little bit, they would have either gone through it, or kind of had the same feelings...We still compare notes.
(Athlete 3)

Summary

Research has shown those factors most likely to impact an athlete's return to competition after sustaining a season ending injury to include: 1) the degree and type of social support, 2) the athlete-athletic trainer relationship, 3) the athlete's cognitive appraisal of his or her injury, and 4) the athlete's emotions upon returning to competition (Arnheim, 1985; Nideffer, 1989; Petitpas & Danish, 1995; Rotella & Heyman, 1986). All the athletes in the current study indicated all four factors to impact their rehabilitation and return to play. In addition to previous research, the athletes in the current study also stated that watching their teammates compete, while injured, was difficult and that rehabilitation was a long and frustrating process. However, athletes benefited from peer modeling and talking with other athletes who experienced the same type of injury. In fact, athletes found informational and emotional support through other injured athletes as they were able to ask questions and compare their progress with their injured or previously injured peers.

Chapter VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Six common athlete experiences were identified regarding their current sport season preparation following a previous season ending injury. Summary, conclusions, and recommendations for future research follow.

Summary

Results from this current study identified six common themes regarding the cognitive and behavioral factors that influenced the athletes' current sport season preparation following a previous season ending injury. Specifically, (a) athletes had difficulty watching their teammates compete while being physically limited as a result of their injuries, (b) athletes found support through their parents, family, friends, teammates, and athletic trainers, (c) immediately after their injuries occurred, the athletes recognized they had experienced a serious injury, (d) upon their return to play, athletes were nervous about getting hurt again and worried about the condition of their injury and regaining their skills, (e) the athletes' injury rehabilitation was a long and frustrating process, and (f) athletes benefited from talking with other athletes who had experienced a similar injury.

Although each athlete had unique experiences, all five expressed frustration watching their teammates compete and not being able to participate in their respective sport as a result of their injury. A period of adjustment seemed to be present for all the athletes as they adjusted to their injury rehabilitation, inconveniences of their injury, and not being able to compete in their sport. Feelings of loneliness and seclusion were also

expressed as a result of the minimal interaction with teammates (Athlete 2). Some athletes (Athletes 2 and 3) expressed being around teammates to be a positive influence. On the contrary, other athletes (Athlete 4) stated that spending time around her team at practices and games made her more frustrated with her injury and inability to participate. In this case, it was even perceived that some teammates were happy for the opportunity to replace her in her starting position.

The timing of the injury also influenced how the participants responded. For example, Athlete 2 tore his ACL and missed the football season under a new coaching staff. As a result, he felt like the coaching staff had little interest in him. Athlete 4, who was a junior captain, also acknowledged that her injury occurred at an inopportune time, as her teammates looked to her for leadership.

As a result of their injuries, the athletes' physical limitations also influenced their rehabilitation. All the participants had surgery and had to adjust to using crutches, a cast, or a sling after their surgeries. For example, there was difficulty with sleeping, going to classes, and taking showers.

In short, all the athletes experienced the benefits of social support and had difficulty in watching teammates compete. Still, each athlete had unique experiences that helped contribute to their own individual injury and rehabilitation experience. As a result of these individualized experiences, the injury and rehabilitation processes appear to be unique and influenced by each athlete's situations and perceptions.

Conclusions

Similar to the findings of Hardy and Crace (1993), athletes benefited mentally and physically from effective social support. Throughout their rehabilitation, support from

family, friends, teammates, and coaches helped the athletes cope with the difficulties of their injuries. Effective support from athletic trainers also enhanced the athletes' physical recovery by providing informational support. This type of support from the athletic trainers included educating the injured athletes about their injuries, giving and explaining their physical therapy, and providing them with information as to what they should expect when recovering from their injuries. Athletes seemed to cope better when there was continuity between their need for a specific type of support (emotional, informational, and tangible) and the support that was given. While there was a mixture of emotions regarding the quality of support received from coaches and teammates, all the athletes expressed the positive impact of the support received from significant others in their lives. These findings are supported by Hobfoll and Stephens (1990).

Similar to the findings of Wiese and Weiss (1987), the athletic trainer played an important role in each of the athlete's injury and rehabilitation experiences. The effectiveness of the athletic trainer's communication seemed to influence whether the athlete had a positive or negative experience. Athletes 1, 2, 3, and 4 stated their athletic trainers educated them about their injury, were in constant contact with them throughout their rehabilitation, and cared about their progress. On the other hand, Athlete 5 expressed frustration with his athletic trainer, as he felt he was on his own during rehabilitation, was rarely supervised in his physical therapy sessions, and experienced little genuine concern from his trainer. Athlete 5 also stated that his athletic trainer treated him as if he were an inconvenience. It was found that trainers had a strong impact in the athletes' rehabilitation experiences by providing information, showing concern, and spending time with the athlete - all of which are forms of social support.

Upon entering back into practice and competition following their injury and rehabilitation, athletes expressed concern for regaining their abilities, skills, and performance levels prior to their injuries. This finding supports Petitpas and Danish (1995), who concluded the most common reactions to athletic injury to be identity loss, fear and anxiety over the recovery process, and lack of confidence in skills. All athletes stated some doubt, worry, or fear upon returning to competition. Athletes 1, 2, 3, and 4, for example, expressed that upon returning to play, that they would be nervous about getting hurt again, will worry about the condition of their injury, and have doubts about regaining their skills.

Although a mixture of emotions can be present during the initial onset of injury, many emotions carry over after rehabilitation has concluded and competition has resumed. Even if these emotions (e.g., fear) are not justified, they will seem very real for the athlete (Russell, 2000). For example, Athlete 4 stated that she planned on changing her style of play upon returning to competition because she feared re-injury. She believed that she needed to change her aggressive play to a much more cautious style of playing. Even though this belief may seem irrational, Athlete 4 believed that altering her style of play would decrease her chances of re-injury.

Future Research Recommendations

Although there is extensive research regarding athletic injury, there still exists a great need for additional research on how athletes' experiences after suffering a season ending injury effect their upcoming athletic season. The first recommendation for future research is to replicate this study on a larger scale by utilizing the same methodology, but

with a larger number of athletes. Utilizing more subjects would allow additional data to be collected, which could either support or refute the current findings.

Second, it would be beneficial to include different levels of athletes (e.g., high school, college, Olympic, and professional) to assess if level of competition influences an athlete's injury and rehabilitation experiences in returning to play following a season ending injury. In order to fully understand those cognitive and behavioral factors that precede an athlete's return to play following a season ending injury, research needs to be conducted with athletes who compete in a variety of sports and across several competitive levels.

Third, longitudinal studies would be beneficial in future research. Such studies might provide information that could compare athletes' thoughts, feelings, and perceptions prior to injury, during the onset of injury, during injury and rehabilitation, and throughout the athletes' return to competition. This type of research would be important because, rather than examining participants at a single moment in time, longitudinal methods would enable additional insight to be gained about how an athlete's feelings and emotions change over time (i.e., before, during, and after experiencing an injury). A longitudinal study would also be beneficial because it would enable the researcher to better compare an athlete's prior injury performance to their performance after returning to competition.

Finally, it is recommended that both quantitative and qualitative methodologies be combined to further understand an athlete's injury, rehabilitation, and return to play. Additional insight can be gained through using these two methodologies and common qualitative themes could be supported by incorporating quantitative methods. Also, since

both methodologies are unique, different information might be found when using each method.

In summary, as long as athletes continue to play sport, injuries will occur. Therefore, it is important that increased attention be given to understanding those factors that precede an athlete's current sport season following a previous season ending injury. Additional research will hopefully provide a greater understanding of those factors that both enhance and hinder an athlete's injury and rehabilitation experiences. These recommendations have been made in hopes of adding to the findings of the current study, furthering the knowledge in this area of research, and providing additional insight into the cognitive and behavioral factors that precede an athlete's current sport season following a previous season ending injury.

APPENDICIES

Appendix A

Recruitment Statement – Athlete

Hi, my name is Riley Nickols. I am a graduate student in the Department of Exercise and Sport Sciences at Ithaca College in Ithaca, NY. I am investigating what cognitive and behavioral factors influence an athlete's current sport season preparation following a previous season ending injury. This is part of my Master's thesis project. I would like to invite you to be one of the subjects in my study. I will conduct an interview consisting of questions regarding your perceptions of your past experience during rehabilitation from injury and how your experiences have impacted, and continue to impact, your current sport season preparation. The interview will consist of open-ended questions and will last between 50-60 minutes to complete. Responses will be tape recorded.

My thesis advisor, Dr. Greg A. Shelley, and I will be the only persons to have access to these tapes. All tapes will be kept under lock and key and will be destroyed at the end of the study. Your participation will be kept confidential and your name will not be used at any time throughout the study. Your athletic trainer and a significant other that you identify (roommate, friend, parent, boyfriend/girlfriend, etc.) will also be interviewed regarding your injury experiences. By agreeing to participate, you acknowledge that you are 18 years of age or older. There will be no compensation for your participation in this study. I will contact you again within the week to ask if you would be interested in participating in my study. If there are any questions, please feel

free to contact me at (513) 505-2160 or RNickols@aol.com. Thank you very much. I greatly appreciate your help with my thesis study.

Appendix B

Recruitment Statement – Athletic Trainer

Hi, my name is Riley Nickols. I am a graduate student in the Department of Exercise and Sport Sciences at Ithaca College in Ithaca, NY. I am investigating what cognitive and behavioral factors influence an athlete's current sport season preparation following a previous season ending injury. This is part of my Master's thesis project. (Athlete's name) indicated that you were his/her primary athletic trainer while he/she was rehabilitating last year. I would like to invite you to be one of the subjects in my study. This would entail that you be willing to answer several open-ended questions about (athlete's name) injury experiences during a 50-60 minute interview. Responses will be tape recorded.

My thesis advisor, Dr. Greg A. Shelley, and I will be the only persons to have access to these tapes. All tapes will be kept under lock and key and will be destroyed at the end of the study. Your participation will be kept confidential and your name will not be used at any time throughout the study. There will be no compensation for your participation in this study. I will contact you within the week to ask if you would be interested in participating in my study. If there are any questions, please feel free to contact me at (513) 505-2160 or RNickols@aol.com. Thank you very much. I greatly appreciate your help with my thesis study.

Appendix C

Recruitment Statement – Significant Other

Hi, my name is Riley Nickols. I am a graduate student in the Department of Exercise and Sport Sciences at Ithaca College in Ithaca, NY. I am investigating what cognitive and behavioral factors influence an athlete's current sport season preparation following a previous season ending injury. This is part of my Master's thesis project. (Athlete's name) indicated that you were familiar with his/her injury experiences and spent time with (him/her) while he/she was rehabilitating last year. I would like to invite you to be one of the subjects in my study. This would entail that you be willing to answer several open-ended questions about (athlete's name) injury experiences during a 50-60 minute interview. Responses will be tape recorded.

My thesis advisor, Dr. Greg A. Shelley, and I will be the only persons to have access to these tapes. All tapes will be kept under lock and key and will be destroyed at the end of the study. Your participation will be kept confidential and your name will not be used at any time throughout the study. There will be no compensation for your participation in this study. I will contact you within the week to ask if you would be interested in participating in my study. If there are any questions, please feel free to contact me at (513) 505-2160 or RNickols@aol.com. Thank you very much. I greatly appreciate your help with my thesis study.

Appendix D

Interview Guide – Athlete

Demographic Questions (to be answered prior to interview)

1. What sport do you play?
2. What type of injury did you suffer and how did it occur?
3. Was surgery needed? If so, when was your surgery date? How long did you miss practice/games due to injury?
4. How long was your physical rehabilitation from your injury until you were “cleared” to play again?

Interview Statement: I will be asking you a few questions about your injury experiences and your current preparations for this season.

Cognitive Appraisal

1. How would you describe your overall injury experience?
2. Describe your thoughts after learning the length of time required for your rehabilitation.
3. What was the most difficult part of being injured?
4. Describe how you are feeling right now about your injury.

Grief Response

5. Describe your injury and the feelings you experienced when the injury first occurred.
6. Describe your feelings in the days and weeks after your injury. Describe your feelings about your injury right now.
7. Describe your interaction with your team following your injury? Did you still attend all the practices or games? What was that like?
8. Describe how you felt not being able to practice or play in games.
5. In what ways has your injury influenced your day to day life?
9. Considering your injury and what you have gone through, what do you think about now as you prepare for playing your sport?

Social Support

10. Describe the support you received during your injury and rehabilitation.
11. How did your coach and teammates treat you during your injury?
12. Describe the support you received from your trainer and the sports medicine team during your rehabilitation. How did their actions influence your rehabilitation?
13. How did those closest to you (roommates, parents, teammates, friends, etc.) react to your injury? Did their reactions change as time passed? Explain.
14. What do you believe was most important to your recovery?
15. During your rehabilitation, did you have the opportunity to speak with other athletes who have experienced the same type of injury? If so, was it beneficial? If not, do you think it would have helped?

Emotions (Doubts, Worries, and Fears) Heading into the Season

16. What are or have been your greatest concerns as you continue to overcome your injury and begin playing this season?
17. Describe your thoughts and feelings while preparing for this season and your first practices.
18. How prepared do you feel for this season?
19. Describe any negative thoughts you have about this season.
20. Describe your expectations for your performance this season.
21. Is there anything that you would like to share concerning your injury or your current sport season preparation that we have not covered in this interview?

Appendix E

Interview Guide – Athletic Trainer

1. How would you describe (athlete's name)'s overall injury experience?
2. How would you describe how (athlete's name) felt right after they were injured?
3. Describe how you perceived (athlete's name) to react after learning about the length of time required for rehabilitation.
4. Based on what you have observed and heard, how do you think (athlete's name) is feeling right now?
5. Describe a typical day for (name of athlete) since he/she sustained his/her injury?
6. What (if anything) has changed for (name of athlete) since he/she sustained his/her injury?
7. Based on your observations, how did (name of athlete) handle not being able to practice or participate with the team?
8. Based on what you have witnessed or heard, what are (name of athlete)'s greatest concerns as he/she attempts to overcome and cope with his/her injury and return to play?
9. In what ways have you perceived (name of athlete)'s injury to have most influenced his/her day to day life?
10. What (if any) type of social support did you perceive (athlete's name) receiving during his/her injury rehabilitation.
11. What type of support did you offer to (athlete's name) to enhance his/her rehabilitation. What did you do to educate (athlete's name) on the nature of his/her injury? How did you perceive (athlete's name) responding to your help?
12. How confident are you that (name of athlete) will psychologically overcome his/her injury?
13. Is there anything else that you would like to share concerning your perceptions of (name of athlete)'s injury that we have not covered in this interview?

Appendix F

Interview Guide – Significant Other

1. How would you describe (athlete's name)'s overall injury experience?
2. How would you describe how (athlete's name) felt right after they were injured?
3. Describe how you perceived (athlete's name) to react after learning about the length of time required for rehabilitation.
4. Based on what you have observed and heard, how do you think (athlete's name) is feeling right now?
5. Describe a typical day for (name of athlete) since he/she sustained his/her injury?
6. What (if anything) has changed for (name of athlete) since he/sustained his/her injury?
7. Based on your observations, how did (name of athlete) handle not being able to practice or participate with the team?
8. Based on what you have witnessed or heard, what are (name of athlete)'s greatest concerns as he/she attempts to overcome and cope with his/her injury and return to play?
9. In what ways have you perceived (name of athlete)'s injury to have most influenced his/her day to day life?
10. What (if any) type of social support did you perceive (athlete's name) receiving during his/her injury rehabilitation.
11. What did you do to help (athlete's name) during his/her rehabilitation? How did you perceive (athlete's name) responding to your help?
12. How confident are you that (name of athlete) will psychologically overcome his/her injury?
13. Is there anything else that you would like to share concerning your perceptions of (name of athlete)'s injury that we have not covered in this interview?

Appendix G

Informed Consent - Athlete

1. Purpose of Study - The purpose of the study is to investigate what cognitive and behavioral factors influence athlete's current sport season preparation following a previous season ending injury.
2. Benefits of Study – This investigation will enable athletes to gain greater insight and a better understanding of those factors that influenced their sport injury and rehabilitation. Information will be gained about how an athlete's preparation for an upcoming athletic season is influenced by their rehabilitation from a previous season ending injury. Athletes, trainers, coaches, and sport psychologists will also likely benefit from the results of this study.
3. What You Will Be Asked to Do - You will be asked to participate in an interview asking about your experiences during your injury and rehabilitation and how your experiences have impacted, and continue to impact, your current sport season preparation. The interview will last approximately 50-60 minutes. The interview will be audio taped and transcribed into a verbatim written document. Following the verbatim transcription, you will also be asked to review the written interview for accuracy. In addition, your athletic trainer and a significant other that you identify will also be interviewed regarding your injury experience.
4. Risks – There are potential risks to the participant (i.e. - psychological discomfort and/or embarrassment) while reflecting back on their injury experience and knowing that others will be asked to do the same. Participants may refuse to complete the interview or skip any questions they feel uncomfortable answering.
5. If You Would Like More Information About the Study – Please feel free to contact the primary researcher, Riley Nickols, at 513-505-2160.
6. Withdrawal from the Study – You are free to withdraw from the study at any time without penalty. You may omit answers to questions you feel uncomfortable answering.
7. How the Data will be Maintained in Confidence - Pseudonyms will be used to protect your identity and anonymity, while maintaining confidentiality. The data reported from your interview will appear as direct quotations from the transcribed text (in order to emphasize a theme) but will not have your name associated with the quotations. All audiotapes will be stored under lock and key. All information received (audiotapes and transcripts) will be read by the researcher and his thesis advisor only. After the study is concluded, audiotapes and transcripts will be destroyed.

Initial

I have read the above and I understand its contents. I agree to participate in the study. I acknowledge that I am 18 years of age or older.

Print or Type Name

Signature

Date

I give my permission to be audiotaped.

Signature

Date

Appendix H

Informed Consent – Athletic Trainer

1. Purpose of Study - The purpose of the study is to investigate what cognitive and behavioral factors influence athlete's current sport season preparation following a previous season ending injury.
2. Benefits of Study – This investigation will enable athletes to gain greater insight and a better understanding of those factors that influenced their sport injury and rehabilitation. Information will be gained about how an athlete's preparation for an upcoming athletic season is influenced by their rehabilitation from a previous season ending injury. Athletes, trainers, coaches, and sport psychologists will also likely benefit from the results of this study.
3. What You Will Be Asked to Do - You will be asked to participate in an interview asking about your experiences having worked with [athlete's name] during their 2003-2004 season ending injury-rehabilitation. The interview will last approximately 50-60 minutes. Specifically, you will be asked about your perceptions of those cognitive and behavioral factors you believe have most influenced [athlete]'s Spring 2005 sport season preparation. The interview will be audio taped and transcribed into a verbatim written document. Following the verbatim transcription, you will also be asked to review the written interview for accuracy.
4. Risks – Participation in this study poses no risk of injury or harm to you.
5. If You Would Like More Information About the Study – Please feel free to contact the primary researcher, Riley Nickols, at 513-505-2160.
6. Withdrawal from the Study – You are free to withdraw from the study at any time without penalty. You may omit answers to questions you feel uncomfortable answering.
7. How the Data will be Maintained in Confidence - Pseudonyms will be used to protect your identity and anonymity, while maintaining confidentiality. The data reported from your interview will appear as direct quotations from the transcribed text (in order to emphasize a theme) but will not have your name associated with the quotations. All audiotapes will be stored under lock and key. All information received (audiotapes and transcripts) will be read by the researcher and his thesis advisor only. After the study is concluded, audiotapes and transcripts will be destroyed.

Initial

I have read the above and I understand its contents. I agree to participate in the study. I acknowledge that I am 18 years of age or older.

Print or Type Name

Signature

Date

I give my permission to be audiotaped.

Signature

Date

Appendix I

Informed Consent – Significant Other

1. Purpose of Study - The purpose of the study is to investigate what cognitive and behavioral factors influence athlete's current sport season preparation following a previous season ending injury.
2. Benefits of Study – This investigation will enable athletes to gain greater insight and a better understanding of those factors that influenced their sport injury and rehabilitation. Information will be gained about how an athlete's preparation for an upcoming athletic season is influenced by their rehabilitation from a previous season ending injury. Athletes, trainers, coaches, and sport psychologists will also likely benefit from the results of this study.
3. What You Will Be Asked to Do - You will be asked to participate in an interview asking about your experiences and interactions with [athlete's name] during their 2003-2004 season ending injury-rehabilitation. The interview will last approximately 50-60 minutes. Specifically, you will be asked about your perceptions of those cognitive and behavioral factors you believe have most influenced [athlete]'s Spring 2005 sport season preparation. The interview will be audio taped and transcribed into a verbatim written document. Following the verbatim transcription, you will also be asked to review the written interview for accuracy.
4. Risks – Participation in this study poses no risk of injury or harm to you.
5. If You Would Like More Information About the Study – Please feel free to contact the primary researcher, Riley Nickols, at 513-505-2160.
6. Withdrawal from the Study – You are free to withdraw from the study at any time without penalty. You may omit answers to questions you feel uncomfortable answering.
7. How the Data will be Maintained in Confidence - Pseudonyms will be used to protect your identity and anonymity, while maintaining confidentiality. The data reported from your interview will appear as direct quotations from the transcribed text (in order to emphasize a theme) but will not have your name associated with the quotations. All audiotapes will be stored under lock and key. All information received (audiotapes and transcripts) will be read by the researcher and his thesis advisor only. After the study is concluded, audiotapes and transcripts will be destroyed.

Initial

I have read the above and I understand its contents. I agree to participate in the study. I acknowledge that I am 18 years of age or older.

Print or Type Name

Signature

Date

I give my permission to be audiotaped.

Signature

Date

Appendix J

Demographic Information

Date: _____

Time: _____

Name

Address

Age: _____

Gender: _____

Year in college: _____

Sport: _____

Number of years playing sport: _____

Role/position on team (e.g., position, starter, sub, captain, leader):

Type of injury: _____

How long were you told your injury would keep you from competing in games?

Weeks: _____ Months: _____

How did your injury occur: _____

Was surgery required? _____ If yes, when was your surgery date? _____

Number of weeks or months that you missed practices/games due to your injury:

Weeks: _____ Months: _____

Numbers of weeks or months before you were "cleared" to play again?

Weeks: _____ Months: _____

Who was your primary athletic trainer during your rehabilitation? _____

Phone number: _____ Email: _____

Who is someone (other than your athletic trainer) that is familiar with your injury
rehabilitation?: _____

Relationship to you: _____ Phone: _____ Email: _____

Appendix K

Biographical Sketches of Athletes

Athlete:	Athlete is designated by the number in the order his or her interview occurred
Age:	Athlete's age at the time of interview
Gender:	Athlete's gender
Sport:	Sport in which the athlete competed in
Sport involvement:	Number of years the athlete has participated in the sport
Level of competition:	The division of the athlete's intercollegiate sport
Type of injury:	A description of the athlete's injury
Length of time missed:	Amount of time the athlete missed practices/games due to his or her injury
Athlete:	1
Age:	20
Gender:	Female
Sport:	Soccer
Sport involvement:	16 years
Level of competition:	Division III
Type of injury:	Torn ACL and MCL strain
Length of time missed:	8 months
Athlete:	2
Age:	20
Gender:	Male
Sport:	Football
Sport involvement:	12 years
Level of competition:	Division I
Type of injury:	Torn ACL
Length of time missed:	12 months

Athlete: 3
Age: 21
Gender: Female
Sport: Gymnastics
Sport involvement: 19 years
Level of competition: Division III
Type of injury: Non-healing shin stress fracture
Length of time missed: 4 months (first surgery) and 5 weeks (second surgery)

Athlete: 4
Age: 21
Gender: Female
Sport: Basketball
Sport involvement: 12 years
Level of competition: Division I
Type of injury: Torn ACL
Length of time missed: 6 months

Athlete: 5
Age: 22
Gender: Male
Sport: Baseball
Sport involvement: 15 years
Level of competition: Division III
Type of injury: UCL/MCL tear
Length of time missed: 9 months

Appendix L

Higher-Order Themes for Athlete 1 (A1)

- THEME #1 (A1:1): Rehab was a long and mentally tiring process, however, her trainer, parents, family, friends, and teammates showed concern and support.
- THEME #2 (A1:2): Although it was hard watching practices and games, being back with the team after her injury made her feel better because her teammates and coaches showed support and included her in functions.
- THEME #3 (A1:3): Her injury caused a change of plans, required time for rehab, was painful and more difficult mentally to deal with compared to her previous injury, and it [the injury] was a big decision to go through with the rehab process again.
- THEME #4 (A1:4): Her second surgery was scary; she felt behind in her rehab because she was comparing her progress with her previous injury and to other athletes' ACL rehab and believed she would earn a starting position next season if she worked hard in rehab and got back into shape over the summer.
- THEME #5 (A1:5): She was nervous, scared, and hesitant about returning to play, thought coming back to play was a mental thing, feared that she would get hurt again, and believed that she would feel more comfortable after she got her strength back.

Appendix M

Higher-Order Themes for Athlete 2 (A2)

- THEME #1 (A2:1): Although it was difficult spending time at football when he was injured, he worked hard in his rehab and was back the day after his injury, while knowing immediately after his injury occurred that he injured his ACL and he would be out for a long time.
- THEME #2 (A2:2): It was difficult for him to stand on the sidelines and watch everybody play while not being able to do anything and having teammates treat him different because they felt like he was “giving up.”
- THEME #3 (A2:3): He found support through friends, teammates, trainers, and having another athlete in rehab with him, but did not receive support from the coaching staff.
- THEME#4 (A2:4): The injury process was frustrating, depressing, hard, long, and slow, and when he attempted to return to play, he could not do what he used to do. He did come to terms with his injury, felt great, and was looking forward to Spring ball.
- THEME#5 (A2:5): He was worried about his endurance and the condition of his knee, was hesitant, and was praying that another ACL injury did not happen again.

Appendix N

Higher-Order Themes for Athlete 3 (A3)

THEME #1(A3:1): She did not want to deal with her injury, wanted an answer to what was wrong, worked through the pain, and because her injury experience was long and frustrating, she decided that if she were to get injured again, she would not say anything to her trainers because she would be scared of losing her senior season.

THEME #2 (A3:2): Although taking on a coaching role and having her teammates try to keep her as involved as possible, it was still hard and even depressing because her teammates were competing and she could not and she felt disconnected even if her team had a victory; she felt as though she didn't deserve what they accomplished because she didn't contribute.

THEME #3 (A3:3): Her surgery was tough and affected her attitude and daily activities but her trainers and doctors always checked in on her and she was able to talk with other teammates who had the same injury. She wanted to work hard and make a return to show that the support and encouragement that her mom, friends, boyfriend, and coach provided made a difference in her rehab.

THEME #4 (A3:4): With her adrenaline flying high upon a return to competition, she projected that she would be nervous because she had not competed in so long, worried that she would not meet her own and other people's expectations, and thought that she could get hurt again.

Appendix O

Higher-Order Themes for Athlete 4 (A4)

THEME #1 (A4:1): She knew what was happening and was in shock when her ACL snapped because she thought it would never happen to her. After surgery, she felt like an outsider, had a hard time and was frustrated with sitting and watching, adapted to being injured, but wished that her injury could have happened at a different time.

THEME #2 (A4:2): Although her parents, pastor, friends, and trainer were helpful after her surgery and her injury helped her become closer with the team, she wished she could have had more support from her coach and believed that certain teammates were excited that she was injured because they got to start.

THEME #3 (A4:3): While trying to stay positive in front of her team and be enthusiastic at practices, she felt worn out, felt like practices were routine and she could not do anything right, that she was not getting anywhere, and that it was just easier to be angry and upset.

THEME #4 (A4:4): Everyone always wanted to know how her knee was feeling, but she hated talking about it all the time because she did not want to be looked at as someone who was hurt.

THEME #5 (A4:5): Although she was known for her hustle, she was planning to change her game to become more of a finesse player and she was nervous and stressed about getting hurt again, living up to expectations, getting back into shape, getting her speed, agility, and skills back, and hoped that playing again would not feel foreign to her.

Appendix P

Higher-Order Themes Athlete 5 (A5)

- THEME #1 (A5:1): While he walked off the field, he knew that he tore something in his right elbow. He was upset with his coach's and nurse's response to his injury, felt like he let his team and himself down, and felt the biggest inconveniences to be running from doctor to doctor getting referrals, his insurance company, sleeping, taking showers, going to class, and coming back to school late.
- THEME #2 (A5:2): As a result of his injury, he felt like an outcast, drifted away from and did not feel a part of the team, was depressed that he could not play, had a difficult time watching practice from the bleachers and even stopped going to practice, felt like everybody forgot about him, and lacked support from his teammates.
- THEME #3 (A5:3): While being cautious and sticking to what he was supposed to do in rehab, he treated his arm as if it was a porcelain doll, shared stories and compared workouts with another athlete who had Tommy John surgery, related to major league pitchers who had the same surgery, and focused attention on every little thing while throwing.
- THEME #4 (A5:4): He was not pleased with the rehab process, thought his trainer was unfriendly and not dedicated to his rehab, felt that he was a pain to his trainer and was often left on his own during rehab, and did not know if he was properly completing his exercises.

THEME #5 (A5:5): He was out to prove people wrong and vowed not to give up since people did not take him seriously when he said that he was going to be back at 100 percent; and while his greatest concern was not overworking his arm, his mechanics were amazing compared to what they were before, and he felt like he was now more of a pitcher than a thrower.

Appendix Q

Common Themes

COMMON THEME #1 (A1:2, A2:2, A3:2, A4:1, A5:2):

Athletes had difficulty watching their teammates compete while being physically limited as a result of their injuries.

COMMON THEME #2 (A1:1, A2:3, A3:3, A4:2):

Athletes found support through their parents, family, friends, teammates, and athletic trainers.

COMMON THEME #3 (A2:1, A4:1, A5:1):

Immediately after their injuries occurred, the athletes recognized they had experienced a serious injury.

COMMON THEME #4 (A1:5, A2:5, A3:4, A5:5):

Upon their return to play, athletes were nervous about getting hurt again and worried about the condition of their injury and regaining their skills.

COMMON THEME #5 (A1:1 A2:4, A3:1, A4:3):

The athletes' injury rehabilitation was a long and frustrating process.

COMMON THEME #6 (A2:3, A3:3, A5:3):

Athletes benefited from talking with other athletes who had experienced a similar injury.

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